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EDITED BY

J. H. MUIRHEAD, LL.D.

Emeritus Professor of the University of Birmingham

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EDITOR'S PREFACE

THE idea of a picture of present-day philosophy of which the parts are sketched in by those who have been the chief contributors to its development, and which may be said to be produced at first hand, was suggested to the editor by Dr. Raymond Schmidt's *Die Deutsche Philosophie der Gegenwart in Selbstdarstellungen*,[1] now appearing in Germany. Dr. Schmidt takes as his motto Fichte's saying: "The kind of philosophy that a man chooses depends upon the kind of man that he is." Philosophies are not like scientific discoveries or technical inventions which are not only impersonal but depersonalized and thus in a sense self-explanatory products of intelligence. Rather they are comparable to the creation of the artist or the poet, embodying his idea, expressing his feeling, instinct with his personality. It is for this reason that the history of the philosophy of an age cannot, if it would be a true one, be merely a record at second hand of the theories that have been held as to the nature of the world and our knowledge of it. It is concerned, of course, with these theories and with their organic connection with one another and must endeavour, as it may, to see them *sub specie æternitatis*. But it must see them also as the outcome of the spirit of the age and of the men who by endowment and experience represent the different phases of its intellectual life—in other words it must see them *sub specie aetatis* and *sub specie personarum*.

While the general idea of the book has been suggested by Dr. Schmidt's enterprise no attempt has been made to imitate it in the details of the execution. There are national peculi-

[1] Vol. i, Felix Meiner, Leipzig, 1920.

arities, shared by British philosophy with British life in general, which put anything like such imitation out of question. British philosophers for good or ill have inherited a profound distrust of philosophical "systems." Mr. Bradley was only expressing the spirit of his time and country when he wrote in the Preface to the *Principles of Logic*: "We want no system-making or systems, home-grown or imported. This life-breath of persons who write about philosophy is not the atmosphere where philosophy lives." There is, moreover, a natural hesitancy in British writers even to claim for what they have written the name of a "philosophy" at all. Had contributions to this book been asked for only from those who owned to the distinction of possessing a philosophy of their own the response would have been meagre indeed.

Not less from the side of the influences which have gone to the formation of their philosophical opinions, the comparative absence of self-consciousness in British writers makes it difficult for them to trace the course of their philosophical development or, when they are able to do so, to bring themselves to speak of it in public.

In view of these differences what has been aimed at in these volumes is in the first place to give the contributors an opportunity of stating authentically what they regard as the main problem of philosophy and what they have endeavoured to make central in their own speculation upon it. Only in the second place and as a free gift from the writers themselves have they been asked to add biographical references to the influences which birth, education, and circumstances have had in giving a particular bent to their thought.

In carrying out this design it has not been possible to include all living writers who have contributed to the development of British philosophy in our time. The selection has been confined to those who have occupied themselves with general philosophical problems rather than the application of philosophical principles in particular departments. Among these the older writers have naturally had the first place. Of the younger writers some are identified more than others

whose services to philosophy in other respects have been as great, with the development of some particular theory of the nature of knowledge and reality which it seemed important in such a general view of present tendencies as the book aims at affording to have as fully represented as possible. Even with these limitations there are obvious omissions. Some of these are due to the inability of writers by reason of preoccupation with other work to contribute articles within the allotted time, and will, it is hoped, be supplied in a future edition.

Among those who have found themselves for other reasons unable to contribute is one whose absence is particularly regretted. Mr. F. H. Bradley has been by general acknowledgment the foremost figure in British philosophy (perhaps in the philosophy of our time in any country) for the last generation. Though no one who has followed the course of his thought during that time, as it is to be found in his books and articles, can have much doubt as to the general tenor and outcome of his teaching, some summary statement of it from his own hand or (which it is more likely we should have had) some fresh development of it would have been universally welcomed. In the note printed at the end of this Preface Mr. Bradley explains the reason why he has found himself unable to give us either.

One of the writers who has contributed to the present volume is unhappily no longer among us. Bernard Bosanquet, as it happened, was one of the first who were asked to write for this book. Having consented to do so he responded with his usual alacrity. Though not actually the last words he wrote for publication the paper he sent is of peculiar interest as containing a personal note not elsewhere to be found in his published writings. In this respect, as well as in the general declaration of his philosophical faith which it contains, the essay here printed may be regarded as his last will and testament to his generation.

What I have myself written below was originally intended as an Introduction to the whole on the part of the Editor.

But when it was completed I felt that it implied a certain view of the course of the recent development of philosophy which some at least of the other contributors would reject, and in which I had no right to implicate them in any way. I have, therefore, preferred to place it along with other more important contributions in the body of the book. For the same reason I have felt that any attempt at a philosophical grouping of contributors, however useful it might be to some readers, would have been wholly improper on my part, even though it had been more possible than it seemed to me to be. I have therefore had to be content in the first place to divide the writers into Series according to the accidental circumstance of the time at which their articles became available for publication, and, secondly, within the separate series to arrange them in alphabetical order.

MERTON COLLEGE, OXFORD.
June 10, 1923.

DEAR PROFESSOR MUIRHEAD,

I am sorry not to be able to become, as you kindly suggested, one of the contributors to your work. If I could say exactly how, after the uncertainty of some years, I arrived at the opinions which I now hold, that, if not of general interest, would at least have enabled me to return thanks in detail for all that I owe. But, finding that (to speak of nothing further) even such an attempt would be now beyond me, I have to confess that there is nothing that I can offer you, except every good wish for the success of your book.

F. H. BRADLEY.

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THE INDIVIDUAL AND HIS WORLD

By J. B. BAILLIE,

Regius Professor of Moral Philosophy in the
University of Aberdeen

THE INDIVIDUAL AND HIS WORLD

INTRODUCTORY

LOTZE remarks that a philosophical theory is an attempt to justify "a fundamental view of things which has been adopted in early life." This seems on the whole true of those who have found a final resting-place for their minds in a completed system. Both in their case and in that of the larger number of individuals who, while mentally impelled to seek intellectual satisfaction through the channel of philosophy, have not constructed a compact theory, it will probably be found that the course of their reflections has from the first been determined by certain fundamental questions, which haunted and stimulated their minds with renewed persistence. These questions seem to control the direction of thought, and selectively to decide the range and the degree of interest in philosophical problems.

To the present writer the problems of vital importance have been mainly these: How are we to reconcile the claims of knowledge to supply valid and universal truth about the world with the undoubted fact that the human mind—and therefore all that it produces, including human knowledge—is subject to temporal change and has a history? [1] How are we to grasp the whole of human experience so as to recognize that we are, as everyday life confirms, clearly and certainly conscious of quite different objects in quite different ways, and to show

[1] The book in which I found this subject discussed with vivid clearness, and which made an early and lasting impression, was Mr. Balfour's *Defence of Philosophic Doubt*, especially the chapter which discusses the evolution theory.

The antithesis out of which the problem arises, was emphasized in the teaching of Professor Pringle-Pattison.

that all these various kinds of experience are expressions of a single principle ? [1] And, how are we to explain the familiar fact that rational interpretation by philosophy and science seems to be fundamental and necessary, while the reality interpreted is neither made nor altered nor apparently in any direct way concerned with the process or the results of our interpretation ? [2]

These three problems, while not obviously connected, cannot in the long run be kept apart. In connection with the first, Mr. Bradley's logical views and the developmental theory of knowledge propounded by Bosanquet were of most importance.

[1] The British tradition has long maintained that experience is primarily the consciousness of objects through the senses. This seems arbitrary and indefensible. To Mr. Bradley we are indebted for having disposed of this theory, probably once for all, at least as a theory of knowledge. But it is open to objections on other grounds. It compels us, e.g., to regard the moral life as either not experience or as derived from a consciousness of objects in the realm of sense-perception. Neither alternative seems possible.

It is largely responsible for the importance which has so long been attached to the problem regarding the so-called independent existence of the "external world." This problem has always seemed to me quixotic ; and the solution offered by Berkeley seems an Irishman's *jeu d'esprit*. Taken seriously, subjective idealism is solipsism ; and that, as Voltaire remarked, is a form of lunacy, and none the less so when cleverly expounded.

Not until we generalize the term experience so as to denominate the consciousness of all objects whatsoever, can we grasp the problem it presents. It is this comprehensive outlook on the problem which gives such attraction and permanent interest to Hegel's unique volume, the *Phenomenology of Mind* (translated 1910). It was under the influence of this book and of suggestions of a similar kind from other sources, that I tried to recast the argument for an *Idealistic Construction of Experience* (1906). The method of working out that theory does not seem to me now to be tenable ; but the governing conception of planes of experience still seems to me true.

[2] This problem is one of the most obstinate and difficult to overcome. The easy solution of pure intellectualism, whether in the form developed in one direction by the recent English school of conceptual realists or in the form adopted by the idealistic school represented by Bosanquet, seems as indefensible in the face of experience as the older empiricism. A solution on the lines suggested by Spinoza's principle of individual self-conservation has seemed to me to afford the best way of doing justice to the factors in the problem (see *Studies in Human Nature*, 1921, ch. i., ii. and v.).

For a time it seemed possible to interpret all forms of experience in terms of the central fact of knowledge regarded as an evolution of thought. But this became unsatisfactory. The proper consideration of the second problem seemed to require that the different forms of experience should be taken on their merits, and that knowledge was only entitled to one place—not necessarily the most important place, as Bosanquet held—alongside other modes of experience. The development of knowledge seemed a special case of the more fundamental fact of the growth of the whole finite individuality. This wider conception seems to make it possible to interpret the forms of experience as levels of development of individuality. And when each stage is regarded as a state of self-conservation, in the Spinozistic sense, we seem able to meet the requirements of all three problems above mentioned.

It is hardly to be expected that these problems will appeal to others in the same way or with the same insistence; or that the problems which beset the minds of others should impress oneself as being of supreme interest. And, since the appreciation of an answer depends on the appreciation of the question, the attempted solutions of problems offered by anyone cannot be expected to carry general conviction; they are fortunate if they even meet with general consideration. These, however, are the natural limitations under which inquiries of this character have always been carried on in the course of the chequered history of human knowledge.

In the present paper I have tried to suggest briefly a conception of individuality which seems to offer an answer to these three main questions. The conception is that of the growth of individuality. Growth implies an identity of nature passing through different stages without change of fundamental structure: growth, in short, takes place within the limits of a type or εἶδος.[1] Such a conception seems able to reconcile change

[1] The natural history of mind seems an unavoidable consequence of accepting the natural history of man, which seems generally admitted; and the point of view of development seems now central in the treatment both of mind generally and of knowledge in particular.

and validity in knowledge. It suggests the further conception of degrees of experience, which enables us to connect and arrange the various ways in which we are conscious of objects. And it also seems to make possible the recognition of the peculiar place occupied by the rational or intellectual activity in human life without committing us to the transparently impossible position that the real world depends upon human understanding, or depends upon being understood.

I

The situation out of which philosophy arises is familiar and, in a sense, simple. The human individual is single and is aware of being so; while his relations to his world, what we call his experiences, are varied, to such an extent in some cases as to have no obvious connection with one another. Philosophy tries to grasp this situation in which man finds himself. It may be described as an attempt to obtain a single complete view of man and his world.

Philosophy occupies no privileged position in man's experience. It does not create this situation. It finds the situation; and it is but a development of one way amongst others in which man's experience is carried out. It cannot, therefore, without endangering the result at which it arrives, and its own value, ignore those characteristics of the individual and his world which govern the situation with which it deals. At the end the factors of the situation must be at least as clearly recognizable as they are at the beginning of the problem.

Few philosophers seem to have realized the importance of finding a place for philosophy itself within the philosophical theory advanced, or what this requirement involves. When it has been ignored or overlooked, the result has been on the whole a misstatement of the problem of knowledge and a misconception of the problem presented by "reality." Two illustrations of this may be enough for our purpose here. On one familiar theory the problem of philosophy is undertaken as an attempt to understand how we connect and hold together

in a single system the varied contents appearing to our organic senses or falling within the realm of perception. Knowledge is said to "begin with experience," and knowledge is limited to experience. By experience here is meant primarily what the senses contain or reveal. Somehow or other this region is accepted as a datum, an irreducible and indeed inexplicable basis from which the mind constructs a solid world. In the result we have nothing but ambiguity and confusion. On the one hand, this single system constructed by the mind is described, and must be described, as itself experience. Other parts of man's life, e.g. morality, which plainly cannot be confined to sense or perception, are either treated as experience in some further sense or are allowed to fall outside experience altogether. And, strangest of all, the philosophical theory which is thus produced cannot be regarded as either knowledge or experience, and seems to be either a miracle or an inspiration from some source external to the philosopher's mind. It cannot be knowledge, for it owes nothing to any sense-datum; and it is not an experience of the mind, since it does not fall within the scope of that connected system of perceptual or sensuous data in which objective knowledge consists. In short, we are left in a dilemma. For if such a philosophy is a form of knowledge, as it claims to be, the theory propounded is false; and if the theory propounded is true, the philosophical procedure from which the theory emanated is not a process of knowledge. It could doubtless be shown that other defects in this way of looking at the philosophical problem are not unconnected with the neglect of the point referred to. But these do not concern us here.

Another and a different illustration of the point we are considering is afforded by those who seek a view of the "whole of reality," regarded as objective to and independent of the individual mind. Forgetting the importance of finding a place for the philosophical theory within the view adopted, reality as such is looked upon as somehow indifferent to the finite individual. Relatively to reality, the individual is a transitory "finite centre," an appearance shot through with

contradiction, and in the long run transmuted in the one reality. The individual's knowledge shares his fate; it is not merely an appearance to the individual, it is an appearance of an appearance, and is "ultimately not true." But the philosophical theory which views the individual in this way is a certain kind of knowledge, and it is devised by some individual mind. We are thus faced with a dilemma. If this theory is the knowledge of a finite individual, it has no abiding place in the one reality and is in the long run not true; if the theory is true, and endures within the one reality, it is not knowledge. There is no escape from this dilemma except by the helpless suggestion that the term knowledge may be ambiguous.

II

The main points to be noted at the outset are: (1) The individual who confronts his world has had a history which stretches back to an indefinite period of time, and has in its process connected him closely not only with his own kind but with the organic and even the physical conditions of the world. (2) The individual is irreducible in his singleness, is from the first a unity of diverse parts. (3) His relation to his world assumes different forms, which have become differentiated in the course of the growth of human individuality and are, at the stage where philosophy begins, more or less clearly recognizable as distinct types of experience, e.g. perceptual experience, conceptual experiemce, moral experience. (4) While all his experiences are integrated in his own individuality, they give his individuality varying forms of satisfaction, which he learns to distinguish in the course of his experience. (5) From the first his world is equally real with himself and is never confounded in experience with his own individuality, whether by resolving the individual into a part of his world or by resolving the world into a process of his individuality. The individual and his world subsist and co-exist together.

None of these points can be disregarded; and common-

sense requires that justice must be done to them in any result reached by philosophical theory. If it be said that this in a measure seems to determine the issue beforehand, and that the procedure is thus in a manner circular, it may be replied that philosophy is not the starting-point of man's life but a late appearance, and that unless the factors in the problem to be considered are definite from the outset there is no problem to be solved. Even the description of philosophy as a "critical consideration of first principles" necessarily assumes that there are principles, that some are primary and others secondary, and that certain principles are generally accepted.

All the questions which arise fall within the scope of the general situation indicated. The nature or meaning of "reality," of "truth," of "goodness," etc., refers to some aspect or form of relation in which man stands to his world. Thus, for example, we do not set out to look for reality outside and beyond man and his world. The very terms "outside," "beyond," can only acquire a significance through the relation of man to his world. Reality lies there or nowhere. To look for reality outside implies that somehow the individual is not himself real. But reality is present in the relation of the individual to his world, and present in the terms related. Experience may be described either as a process of the discovery of reality by the individual, or as a process by which reality is revealed or "realized" in his experience. And every stage of the process has a double-sided result. It is not simply a discovery by the individual of reality in his world, it is at the same time a discovery of reality in himself. It is not only a discovery of his own reality, it is a discovery of the reality of his world.

On this view, reality is not "given" anywhere to start with, neither in the exiguous form of sense-perception nor in the comprehensive form of a totality "objective" to or independent of the human individual. For this would again imply that somehow the individual, who faces such reality, is not himself real, since by hypothesis he is not included in the

reality so given. What is "given" must be given to someone, and that which receives is not the same as what is given.

III

In the light of what has been said, we seem best able to obtain a conspectus of the whole of man's experience if we take it to consist in the active interrelation of a living individual with the environing world. This enables us to keep hold of what is fundamental throughout experience—the singleness of the individual life, the gradual and largely experimental character of the process from first to last, and the relative imperfection which qualifies even man's highest achievements. Man's relation to his world is functional. It consists in a series of active efforts of adjustment, assimilation and detachment. Any term characteristic of living process thus seems to express most satisfactorily its essential nature: self-conservation, growth, adaptation. Consciousness, which pervades all experience, is consciousness of a living individual; and life means growth in co-ordination within and without the individual. The essential nature of man's experience as a whole is perhaps best illustrated by the way in which a child gradually discovers the world with which it is confronted as soon as it assumes an individuality of its own; or, again, by the way in which one generation rediscovers and reacquires the knowledge already secured by a preceding generation. The world for the individual is relatively fixed;[1] into that world the individual is gradually introduced; and with that world he keeps up conscious intercourse by all the resources of his living individuality.

The process of growth cannot be considered to be logical in its form or in its aim. Logical procedure is essentially intellectual; and intellect is but one function which is put into operation in the course of and for the purpose of self-main-

[1] "Relatively," because it is not unlikely that the world is undergoing development on its own account. But its epochs of variation would have in that case a greater time-span than that of any human individual, for whom the world is certainly fixed and orderly.

tenance. It furnishes one kind of experience. The unity of individuality lies behind intellectual activity, as it lies behind every other function by which the individual lives and moves and has his being. Individuality merely assumes one specific expression in intellectual activity, an expression whose method of procedure is that of logical form and rule.[1] Logical rules do not determine other expressions of individuality, e.g. practical action or perception; these have rules and conditions of their own appropriate and peculiar to their character. Hence it is more correct to say that the process of discovering the reality of the world can take a logical form, than that it is essentially logical. Individuality is on that account neither illogical nor alogical. It is simply more than logical; and no process of logic can exhaustively convey its experience.

Nor do we seem justified in saying that the central principle in the process of experience is that of self-consciousness.[2] At the best this is a late development in experience; and is largely acquired in the course of struggle and correlation with other like constituted individuals. It dominates social experience; but social or moral experience, while one of the highest forms of experience, gives no clue to express or interpret all other forms of experience. It is not possible, for example, to describe our consciousness of the world through the use of our organic senses as a consciousness of self; it is equally impossible to say that perception of the world by means of the senses is not experience. The realm of physical nature may be an " other "

[1] Thus, e.g., the logical principle that thinking involves non-contradiction or identity in diversity is derived from, but not the sole constitutive principle of, the concrete individual life. It is an application of the fundamental nature of individuality which is appropriate to the sphere of intellect. In so far as intellect can be called abstract, this logical principle is abstract. But intellect is only abstract in the sense that it is one expression of individuality.

[2] This seemed to me at one time central in experience (see *The Idealistic Construction of Experience*). The principle is highly important, but I do not now think that, on a fair view of the origin of man's life and his inseparable connection with and dependence upon the organic and inorganic conditions of the world, it is possible to consider the whole course of man's experience to be expressible as a movement from or towards consciousness of self.

to the conscious individual; but it is certainly not another self, for the obvious reason that there is no reciprocity in the relation of the individual to the physical world. We can know physical things; but physical things do not know us, in the way that, in social experience, individuals do know each other. Common-sense does not allow us to admit that there are any other selves in the world except our fellow-creatures. And there are certainly sufficient numbers of these to develop the fullest consciousness of personality—the experience in which man withdraws from the inhospitable strangeness of so much of his environment and enters the welcoming hostelry of communicating souls. Even if self-consciousness be the highest stage of experience, it is not on that account the only form; it is one amongst other forms in which our experience appears.

IV

When we observe the course of man's experience we find the most prominent facts to be (A) the complex variety of ways in which he enters into vital relation with the other beings constituting his world; (B) the varying success which the different functions of his individuality achieve in the realization of his experience—the degrees of reality attained.

(A) Man's individuality may be described indifferently as an incorporate mind, or as a conscious organism. Mind and body are indissolubly united in his individual life; and so interpenetrate in their processes that the problem of the distinction and the connection between them can hardly be satisfactorily stated, much less solved. Certainly in actual experience, as we find it, there is neither separation in fact nor in activity. Just as the upper levels of organic activity appear as conscious selective processes, the lower levels of organic activity seem, according to recent investigation, to operate in the non-selective region of the "unconscious." Where the discontinuity seems most marked,—e.g. between the function of thinking or imagination and the physiological process of the central nervous system—we usually admit that the discontinuity is merely the

measure of our own ignorance for the time being of what takes place. The normal living individual engages with his world by focussing his composite being—body and mind—on the various situations which he encounters. When he says "I see this or that," "I did this or that," or "I think this or that," he does not mean "my mind did this but not my body," or "my body but not my mind." He means what he says, namely, that his integral individuality is involved in the experience. The unity of his individuality is manifested in the effort to subsist; it is not found in any punctual unity within his individuality at the time, nor in any ideal unity of which he may perhaps become aware and towards which he may strive. Every reaction upon or interrelation with his world is a specific direction assumed by the single individuality. The individual always confronts his environment with his whole being, but in some particular way in each situation.

While every movement of experience involves some conscious activity of adjustment on the part of the individual, the degree of conscious effort in the process varies in general according to two conditions:—(1) the extent of organic accommodation (partly inherited, partly inherent or structural) to any part of the environing world, and (2) the extent to which selective attention is required to make the adjustment. Thus in the process of breathing, which is a form of self-maintenance in relation to the environing atmosphere, the lungs are structurally more accommodated to the environment and in consequence involve less conscious effort than in distinguishing sights and colours, and still less than is necessary in the selective activity of securing food or controlling natural objects. In general we may say that conscious effort varies directly as selective attention is required and inversely as the organic accommodation to the environment. Thus where preformed organic structure and function are at a minimum, e.g. in the activity of reflection, the conscious effort required is at its maximum.

Between the lower limit of conscious relation to the environment, where relatively slight activity is exerted, and the upper

limit, where continuous effort is demanded from the individual, many forms of interrelation with the world are found. They are different in their process, in their conditions, and in the kind of relation they establish between the individual and his world. They are different forms of experience.

We may take the more familiar by way of instances of the varieties of experience. Thus we have the exercise of the various special senses—eye, ear, touch, etc.,—which are structurally determined and give the individual the experience of his physical independence of and interdependence with his world.

In the emotional attitude, the individual discovers that individual objects in his world promote, sustain, or hinder his own life, or have what may be called different degrees of kinship or alienation from him. Whereas the special senses supply the individual with mere " qualities " of things, emotions such as fear and sympathy are attitudes which are aroused by the presence of another real being, and concern man's existence more intimately than do the qualities of things.

Again, the active exercise of the free limbs of the body for the purpose of controlling or interfering with selected parts of the world, produces a heightened sense of distinctive individuality on the one hand, and a relationship of subordination between the individual and the world which he fashions by his action on the other. The relative subordination of the object to the agent felt and realized through action, while it never in fact extinguishes the independence of the object, may yet be so complete as to give the individual a feeling that his world is transformed by action, is but a quasi-extension of his own individuality and in a manner incorporated with him. This is what we find in some of the higher forms of work.

Once more, we have interrelation established through the selective activity exercised by the intuitive and reflective intellect in the scientific attitude to the world. In contrast to that just mentioned, there is no apparent or consciously direct dependence on bodily conditions for the carrying on of this form of experience. Partly on this account, the interre-

lation between man and his world at this level involves a constant sense of detachment from his world, in some cases so complete that the individual looks upon his environing world as "outside" or alien to his life: in extreme cases he has treated it as indifferent almost to the extent of non-existence.[1] Nevertheless intellectual activity has behind it the whole life of individuality, and is a way of securing the stability and integrity of the individual in relation to his world. In the normal activity of the intellect, as distinct from the exceptional or extreme cases referred to, the individual does not merely find himself detached from his world. When the intellectual process is satisfactorily completed, he finds himself more at home in his world than before the process was undertaken, largely because thinking establishes relationships with the world which are relatively permanent and universal.

Another familiar inter-relationship may be mentioned. One region of the individual's environment is constituted of beings in all essential conditions like himself. The experience through which the individual establishes and maintains relations with these, brings into play and utilizes simultaneously many other forms of relationship, some of which have been indicated—the organic senses, perception, the instincts, the emotions, actions and thoughts. Likeness of individuality gives rise to complete reciprocity of interrelation; and no other form of experience exhibits reciprocity between the individual and other beings. In scientific knowledge, for example, the relation of the individual to the thing known is not reciprocal. Reciprocity at once implies independence of individuality and brings about thorough-going interdependence between individuals. The experience of reciprocity of individuality constitutes the social order of human life. In no other sphere of experience does the individual secure the same sense of solid integrity of separate existence either in himself or in other finite beings; for the activity of each is directed not merely to maintain himself, but in so doing to maintain, or assist the maintenance of, other

[1] Certain forms of abstract thinking both in science and philosophy have taken this direction.

individuals. It may be difficult for an individual in some parts of experience to separate sharply his own individuality and other beings, e.g. in the process of sense-perception or even in action. But every individual can and must maintain the separateness of his individuality relatively to other human individuals. The insistence on this is the essence of reciprocity; without it the individual would lose all sense of individuality, just because of the fundamental generic likeness between individuals. The greater the likeness the more necessary, so to say, does it become to discover and maintain separation. Hence the individual acquires more readily, and seeks to acquire, a greater sense of individuality in interrelation with his fellows than in other kinds of interrelation with his world. This sets an unique task in his experience—the task of the moral life.[1]

What has been said may be enough to show the variety of ways in which man confronts his world. They are, of course, not exhaustive; and each type of itself is capable of an almost indefinite variety of detailed expression.

V

If we observe the various forms of experience, we shall find that they all involve the same general character of experience: a conscious distinction and relation of the concrete individual to his world, a process of conscious reference of some form of his activity to some region of the world. The differences, however, between the several distinct forms of interrelation constituting experience are only to be found empirically. They seem to have no logical or even temporal connection with one

[1] Some have suggested that we arrive at the consciousness of other human individuals by way of "inference from our sense experience." It is difficult to attach any meaning to such language, for the inference assumes what the inference is supposed to establish. Without complete reciprocity between individuals there would be no basis for the inference, neither major nor minor premiss. We do not merely see each other, but communicate with each other, feel emotions towards each other, and act upon and towards each other.

another; and each is governed by laws or conditions peculiar to itself.

It seems as impossible to show from any fundamental principle why the individual should have all these varied ways of adjusting himself to his world, as it is to show why he should have more senses than one or why one sense differs qualitatively from another. All we can say is that we find by observation these forms of experience.

The struggle for existence can account for variations of structure or function in species and in individuals; but so far the theory can hardly be said to account for the existence of qualitatively different structures and qualitatively different functions. Nor is it possible to derive from any conception of human individuality these varied forms of experience; for every conception of human individuality or of its purpose must first accept these modes of experience as so much empirical fact. Neither science [1] nor philosophy seems able to explain the origin or the reason of qualitative distinctiveness in the various forms which experience has assumed. They are observed to be different; and that is all that can be said on the question of fact. They cannot be derived from one another, nor can any one operate as a substitute for another. We cannot derive one sense from another, nor all from touch, even though it be shown that touch is a common factor in all sense-experience. Still less can we derive action or thought from sense-perception, or emotion from any of these or any combination of them. Each involves a specifically different call upon the resources of the individual, and each is a specifically different reaction towards the world of objects. They are held together by and they all fall within the life of the one individual; and this alone gives them connection and

[1] The attempt has been made, e.g. by Spencer, to trace the genetic evolution of the mental life, and by others, e.g. Dr. Ward, to arrange the contents of mental life in an ordered sequence of stages, functional in character. But neither of these quasi-descriptive interpretations can be said to explain the origin or the reason of the qualitatively distinct attitudes constituting the individual's experience. These are observed beforehand and simply accepted as facts.

continuity with one another. With a new distribution of attention, a new and distinctive attitude is taken up, thus constituting a new experience. We cannot by taking thought add a single contribution to the sphere of sense-perception. Nor can thought be identified with action. When we describe action as "applied" thought, in the term "applied" the essential character of action, as distinct from thought, is already involved.[1] To carry the thought into action an entirely different adaptation to his world is consciously made by the individual from that required to arrange and develop a process of thinking.

The qualitative distinction between the different forms of experience is further indicated by their being governed or regulated by different laws and conditions. Thus the laws of thought do not hold of the processes of sense-perception. Thoughts are consistent or inconsistent with other thoughts. Sounds are not consistent or inconsistent with thoughts or with one another; they are harmonious or discordant to the

[1] The attempt to reduce action to thinking by describing it as "applied thought" is one of the most persistent tendencies or prejudices of certain philosophers and some scientists. It is one of the idols of the philosopher's cave: it is no more accurate than the view of the "practical man" that thought is but a form of practical action. It is, however, difficult to eradicate this error from a certain type of mind. A recent writer on philosophy goes so far as to regard speculation as a kind of substitute for action. "Speculation," he says, "is only a form of practice in which the practical issue is suspended." In other words, in order to maintain the doctrine that thought in some way contains action, the suspension of a practical issue has to be identified with the practical issue itself; the arrestment of action is taken to be the same as the performance of the action. The obstinacy of a prejudice could hardly go further. Obviously the suspension of the practical issue is already a form of action, viz. a decision not to carry out the thought. It seems transparently absurd to identify a decision not to act with the whole course of action, or to hold that active performance adds nothing to the thought of performance. Even the practical application of scientific theory does not mean that the facts or events resulting from the application come out of the theory as a scheme of thought. What takes place in such cases is that we combine the process of thought with the content of sense-perception into a continuous experience, both thought and sense-perception being qualitatively distinct from one another but capable of being blended within the individual's experience simultaneously.

ear. A combination of thoughts is not necessarily or always thought. But a combination of sounds is always sound. Similarly, a judgment may contain other judgments which may be derived from it; but one colour cannot be derived from another colour, when the latter is presented to the eye. With the necessary changes the same observation applies in the case of other forms of experience—action or emotion, for example—as compared with the activity of thinking.

It is important to note, further, that in the various types of experience not only are specifically different functions of the individual life brought into play, but more of the functions of individuality co-operate in the realization of the experience in some types than in others. Thus in sense-experience, the relation of man to his world can be carried on, and in general [1] is carried on, without any reflective process, and without any emotion being involved. The individual opens his eyes and he sees colours; he moves his body and sees other colours. The construction and functional adjustment of his sense-organs settle his experience. In the emotional attitude, however, sense-perception is involved; and sometimes ideas are implied and enter into the constitution of the experience, either by way of initiation or direction, or, it may be, continuance. In carrying on scientific activity, again, perception may be required, emotion to some extent always is implied, as well as what is central in this experience—the arrangement and connection of thoughts. In the moral life still more of the individual's functions are exercised to cope with the situation in which he interacts with his fellow-creatures.

VI

(B) This remark has an important bearing on the next feature of experience to which we pass. The different forms of relationship between the individual and his world seem to be realized with varying degrees of success, and establish his individuality

[1] "In general," because in certain cases, as is well known, an emotional tone does accompany colours.

more or less fully and more or less securely. There are three points to consider in this connection: (1) Each form of experience supplies a different consciousness of reality; (2) in some forms of experience he seems able to attain a greater conformity to his world and a greater degree of confidence than in others; (3) his individuality is fulfilled in varying degrees in different kinds of experience.

(1) Reality is sometimes identified with our completed experience, with our "experience as a whole." Sometimes one form of experience is taken to be primarily or solely reality: e.g., sense-experience has been so regarded; and all other forms of experience have then been treated as secondary or derivative from "reality as found in sense-experience." The first is ambiguous; the second is arbitrary. But in either case it is implied that reality is that which is permanent, continuous, and irreducible in experience, that from which experience proceeds and in which it subsists. The single living individual in active relationship with his world alone seems to possess these qualifications. Wherever the human individual secures through relation to his world a consciousness of his solid integrity, there he is certain of being real and certain of the reality of his world.

In that sense it is true to say, as many have said, that "reality is individual." For with the consciousness of individuality on the part of the human individual there always goes a consciousness of his world, or a part of his world, as in some way individual. The individuation of his world is obtained in some cases by a process of selection and concentration. This is found more especially in the region of sense-experience, when, e.g., the continuum of light or sound-sensation is broken up by the selective action of attention into definite parts or areas. When this has been accomplished, the individual is aware of his world as real in the region of sensation, and he treats it as real accordingly,—that which resists, and subsists along with, his own individuality. But in all cases the interaction of the individual with his world is the way in which the individual both discovers his own reality

and that of his world. His experience may be said to consist in the process of this discovery.

There is no consciousness of individuality at the price of disintegrating or dissipating the solidity or unity of the living individual. If this goes, the consciousness of reality disappears altogether. And conversely, if the substantial integrity of the parts of his world were melted away into "mere appearances" or illusion, the consciousness of the singleness of individuality would be unrealizable.

In the course of experience we find that the individual does not attain a consciousness of his entire individuality all at once, or a consciousness of his world all at once. It consists in a series of experiences, connected in that they fall within the life of a single individual, but distinct in that each proceeds along its own lines and subject to its own conditions. The nearest approach to a consciousness of "all reality" is found in religious experience. But even then we do not enter into conscious relation with every reality in the strict sense of the term, but with "reality as a whole." Thus, e.g., religious experience rises above and ignores the visible and tangible realm of the senses, and is focussed on the unity or abiding order permeating all things. But "all reality" cannot be experienced if we ignore the play of the senses, or any other function of the individual's life. In a word, the consciousness of all reality and the consciousness of reality as a whole are in principle and in experience distinct. There is no single state of experience in which we are simultaneously aware of, or simultaneously exercise, all the complex and varied activities making up the entire range of experience; there is no single attitude in which we stand in relation simultaneously to each and every part of our world. The only way in which in fact we enter into relation to the world is through discrete and distinct forms of experience. When one is being carried on, the rest are in "background," or for the time ignored.[1] This is doubtless due to our finite limitations. But whatever the cause or reason it is obvious fact.

[1] Hence the error of certain forms of mysticism which seek to grasp the whole and its parts at once.

Now if we are not arbitrarily to confine the consciousness of reality to one mode of experience, there seems only one other alternative. We become conscious of reality in each form of experience. The reality of which we are conscious varies with each form. But it is reality in each case, because in each the individual secures his solid integrity alongside and in relation to some part of his world equally real with himself. And this view seems in fact to be confirmed by our procedure in everyday life and to conform to common-sense and common usage.

We may take certain typical forms of experience to illustrate the point.

(*a*) In the sphere of our sense-experience—sensation and perception—we are aware of nothing whatever beyond what appeals to, or can be found by the exercise of, our sense-organs. The reality of which we are aware here consists of regions of sense or centres of sense elements—"things of sense." These are not appearances, still less illusions; they are reality at this level of experience. Moreover, within this level, so far as a distinction is drawn between reality and appearance, that distinction is one made and used solely by the exercise of the senses. For example, we confirm and criticize the deliverance of one sense—not by another region of experience—but by the exercise of another sense. When different senses converge on the same part of the world—when, e.g., touch supports the deliverance of sight—the object is more firmly fixed in the realm of sense-experience than when the deliverances of those different senses are divergent. No other form of experience can supply what is peculiarly found in sense-experience. And we are always certain of individuality in this experience, as e.g. through the consciousness of the resistance of our organism to the things of sense. By sense-experience, indeed, we may be said to become aware of our physical or material independence of other physical parts of the world. In this way experience at the level of the life of sense is a discovery of reality in one form.[1]

[1] If it be said that the reality in the experience of seeing or hearing,

(*b*) Let us consider another type of experience—that of reflective knowledge or science, which at its best takes the form of a systematic and precise connection of definite concepts. In this case the relation of man to his world is carried on by the continuous exercise of the function of thought, the function of bringing diverse elements within a single general unity. The function in any given case is carried on to a point, largely determined by selection, where a connected system of thoughts or universals is established. The experience consists in the discovery and establishment of this system. For in that system the individual becomes aware of the permanent unity of his own life and at the same time the enduring stability of his world. The systematic connection of thought is thus at one and the same time the discovery and establishment, in a distinctive way, of his own individuality and of the coherent integrity of his world. The reality of which the individual is conscious at this level of experience consists solely in this connected system of thoughts.[1] The experience is the conscious fulfilment of the individual life through the process of establishing the system.

This does not mean, as some seem to have held, that man's thoughts are the "substance of the world." All man's experience is his own from first to last. It is his way of fulfilling his individuality, which is a life growing into communion with its world. This holds of sense-experience no less than of science. The world does not hang upon man's apprehension. This is particularly evident in the case of the experience achieved through reflective or scientific knowledge where, as we find, the process is difficult to carry on, definite

consists in vibrations of ether or vibrations of air, the answer is (1) that this is not even a true analysis, since the organ of vision and that of hearing are necessary to give any meaning to the terms sight and sound; and (2) that these vibrations are apprehended at another level of experience—that of science, and, so far as verifiable by sight or hearing, assume that the sense organs are involved in and not excluded from the experience.

[1] Or—if we may put it so—the individual is expressed "objectively" in this system, his world is revealed "subjectively" in the system. The system is "objective."

concepts are difficult to secure, a precise connection rarely established. To suggest that the "substance" or even the "existence" of the world has to wait upon such an experience seems childish in its absurdity.

The importance attached to conceptual experience—an importance which probably accounts for the view just mentioned—is due to two of the characteristic qualities of thought. It is in large measure selective in its procedure and therefore in a peculiar way expressive of the initiative of the individual; and it functions in the medium of universals which, when secured, do not readily change.[1] It thus in a special way manifests, on the one hand, the independence and singleness of man's individuality, and seeks, on the other hand, to establish a result which gives the individual a consciousness of his solid integrity and permanence.

Reflective consciousness of the world has to be won by deliberate conscious effort; and because it has to be won, the effort may fail and does fail repeatedly, as the history of man's knowledge shows. It is in this sphere of experience almost more than in any other that the experimental procedure of trial and error, characteristic to some extent of all man's experience, is specially illustrated. If we bear in mind that man's experience is essentially the growth of a living individuality, the explanation of this highly experimental character of so important an experience as that of reflective thinking, must be that the function of thought in man's life is less fully developed than certain other functions of his individuality. Thought may thus be looked upon as a "growing point" of the future development of man's individuality, the line (or a chief line) along which his further evolution may be expected to take place.[2] In his sense-experience his development seems

[1] It is interesting to note that the high degree of initiative and selection, involved in concentrated reflection, and the universality of thought seem essentially to imply one another. Hence the feeling of freedom and liberation of mind which man has at the level of thinking activity, giving him a peculiar joy and satisfaction.

[2] In this sense it may be admitted that, as it is sometimes said, "thought is central in human experience." It is a function which

on the whole completed; for here few, if any, prolonged or serious experiments have to be made. If his function of thinking were as far advanced in development as the exercise of his senses, he would become conscious of his world (in its parts or even in its entirety) as a clearly connected, intelligible system, with the same ease with which by merely opening his eyes the world dawns upon him as a field of colours. Such a stage in his development, however, he is obviously very far from having attained. The process of establishing a system of precisely connected thought is a perplexing alternation of success and failure. As evidence of his consciousness of the experimental character of his thought, he draws a distinction in this form of experience which is held to be peculiar to it. He distinguishes between valid and invalid thought, between truth and error or falsehood. We do not speak of true sensations or false sensations, true emotions or false emotions, though it is evident that, in these forms of experience, experiment also to some extent takes place. But the extent to which experiment obtains in different levels of experience is a matter of importance; and since there is a greater amount of experimentation in the sphere of reflective experience, the distinction there between success and failure has to be emphasized. Hence in part the reason for marking the distinction by specific terms —truth and error: a further reason is probably our peculiar interest in the process of reflection, since along this line the further advance of individuality lies.

An opposite mistake to that above mentioned may be noted.

consciously brings the unity of the individual directly to bear upon his world. Hence its possible application in so many directions; hence, too, its "abstract" character. But we must not on this account say that it is "central" in importance, i.e. prior in value to other forms of experience. Except for those whose main interest is science, there is no support for such a position. If human beings were left to the sole exercise of their powers of reflection to maintain their lives, the race of mankind would probably be extinct within a year. Some might admit this and yet maintain that not reasoning but reason is central in importance. But what that reason is which does not exercise reasoning they do not seem to make clear. The active singleness of the individual life is alone central in experience.

It is said that in reflective thinking the reality lies beyond thought altogether. One familiar form of this view is the doctrine that we "come in contact with reality" in sense-perception, that our thinking "refers to" reality as there disclosed and is carried on by constant reference to reality which "comes home to us" in sense-experience.[1] But this statement does not even apply to all kinds of thinking. E.g. how can it apply to all mathematical knowledge? Or how can it be said that in a scientific consideration of morality we are referring to what is "found in sense-perception"? And where it does seem to apply, e.g. to cognitive reflection upon perceived facts in "nature," the doctrine is not an accurate analysis of what occurs. The mind does not refer its thoughts to the realm of sensuous fact, as if this were outside the mind's experience and were a kind of unchanging substance with which it had to compare and by which it had to test the process of thought. What the mind does in thinking about the facts displayed to the senses is to devise such concepts as, when woven together into a consistent system, will, at the level of thought, establish and secure a consciousness of the single integrity of the individual life, in the same way as that is conserved by the individual through the use of his specific organs of sense at the level of sense-experience. When this is properly accomplished by thought, there is obtained a conscious continuity in the one individual life between the level of sense-experience and the level of reflective experience; and this continuity, when so obtained, increases and strengthens still further the consciousness on the part of the individual of his solid reality and the reality of his world. Hence it is that, when thought fully accomplishes its end, we have a feeling of

[1] It is but natural that those who put forward this doctrine should also hold that "in the end all is beyond us," that the whole transcends knowledge. If reality is outside thinking from the start, it cannot but be outside it at the finish. Hence, in order that the whole may not be outside experience altogether, those thinkers sometimes take refuge in a supra-reflective "feeling" which itself transcends knowledge; that is to say, the immediacy of feeling gives us reality without relations, knowledge gives us relations without reality. Why then should knowledge trouble about reality at all?

being more completely at home in our world than we have by sense-experience alone. Hence again we find that, in such a case, thought "confirms" sense-experience, and sense-experience "supports" the results of reflection, without either interfering with the conditions or procedure of the other. We cannot, and analysis will show that in fact we do not, "test" the accuracy of our thought by, or "compare" our thoughts with, sense-experience, any more than we test our senses by our thoughts or compare the sense-experience with the results of reflection.[1]

This interpretation of the difference and the relation of scientific experience and sense-experience seems to do justice to all the facts of the individual's life; and it avoids the hopeless difficulties which arise from the views above referred to, difficulties which have repeatedly been disclosed and not satisfactorily removed. Moreover, the above interpretation keeps close to the essential conditions of the individual's experience on which we have laid stress, viz. that the individual grows into a consciousness of his world, and each stage of his growth is not superseded by any other, but is retained in the qualitative distinctiveness of its contribution to the mind's experience.[2]

[1] Thought must supply and does supply its own test—and that test is the consistency and coherence of our thoughts with one another. In like manner the senses must supply their own test, and this, as already indicated, is the convergence and co-operation of the senses towards the establishment of a single sense-experience, e.g. when sight supports touch, or hearing co-operates with sight.

[2] It is also confirmed by the well-known procedure of exact scientific reflection. For those scientists who aim at logically exact conceptual connection do not suppose that their theories are at the mercy of what, for them, is looked upon as an inferior level of experience—the experience of the senses; nor do they feel either elated or perturbed if their theories do or do not "agree" with the deliverances of sense-experience. If their theories are logically consistent and their conceptual scheme coherent, they are satisfied; they have all the reality and, they may even say, all the "truth" they want. When they consider, if they consider at all, the relation of their conceptual construction to the realm of perceived fact, it is not with a view to establishing their theory as "true," as if sense-experience could make or unmake the validity of their theory. They consider to what extent their theory, consistent in itself as a connected scheme of concepts, gives also a

(*c*) We may consider more briefly another type of experience. There is a consciousness of reality involved in the interrelations with other human beings, which constitutes moral experience. It is a different kind of reality from that involved in other kinds of experience, and is not derived from any process of mere sense-experience or by logical "inference from sense-perception." In and with the conscious interaction with other human beings we are aware that they are as real as ourselves and real in the same sense as ourselves, for the relationship is reciprocal. If this were not so, moral experience could not even begin. We do not first believe in or infer the existence of the friend we meet and then, having made up our minds that he is "real," proceed to converse with him.[1] Various resources at the command of our individuality simultaneously go out to meet and deal with our fellow: our perceptions, our thoughts, our actions, our emotions, converge on the same centre of interest. And in this process we do not merely find his individuality, we find our own at the same time. The reality discovered in this form of experience is a common

description of the order of phenomena revealed by the senses. Relatively to sense-experience their theory is looked upon as but a "conceptual description" of the world disclosed to perception, a "conceptual formulation," not an "explanation" of it. The reason for the use of such an expression is evident: the region of reflective experience and that of sense-experience being qualitatively different, the language of conceptual thought can only "describe" sense-experience, just as the language of sense-experience can only "describe" thought processes. Hence, for example, it seems rather naïve to suppose that the logical validity of the connected system of mathematical concepts constituting the mathematical theory of relativity can possibly be decided and its fate determined by the aid of the somewhat trumpery devices of telescope and photographic plate. Some of the best mathematicians seem agreed that so far as perceptual experience is concerned there are various possible mathematical conceptual schemes which will "fit the facts" besides that of the "theory of relativity" as recently put forward. But this does not affect the logical validity of this theory on its merits as a conceptual scheme.

[1] It seems ridiculous for anyone to suggest that he infers the existence or the reality of another human being from his own, when his own could be extinguished as a conscious fact by an act on the part of the other. We can no more infer another's existence from our own than we can infer our own from another's.

reality, a community of individuality—what we call a society. The development of inter-relationship increases not only the consciousness of the individuality of others but makes clear the extent and limits of our own. Largely because, in reciprocal intercourse with others, we are acting and reacting upon and with beings so fundamentally like ourselves, a great part of the process of moral experience consists, for the individual, in the emphasis on his distinction from his fellows. His independence relatively to them becomes essential in order to keep up the relationship. Hence it is in moral experience, more than in any other relationship to finite beings, that the individual finds most clearly the boundaries of his individuality. Hence the keen sense of his reality which the individual acquires in moral experience, a reality which he permits no one to minimize or to gainsay. For not merely is he at pains to insist on it himself; but others—by processes of law and coercion—require and expect him to maintain it. In a word, the conscious reciprocity of relation between human individuals is the special process, and community of nature is the reality discovered and established, in moral experience.

VII

(2) Observation of the growth of the individual's experience clearly shows that the individual has to cultivate the various forms of experience in order to discover all that they can severally contribute to the life of his individuality, and all that they can reveal of the world about him. None of his functions, not even those of his senses, are exercised perfectly from the start; and perhaps few in most individuals are ever perfected. Experience is a perpetual process of experiment, trial and error. This is one of the most striking and, in some ways, pathetic characteristics of the life of the human individual on the planet. He is always moving about in a world only partially realized. He is met at every turn by the "obstinate questionings of sense and outward things;" and rarely loses the sense of childlike surprise so peculiarly evident in the

earliest stages of his earthly career. He has set up institutions of learning and of religion to assist him to become familiar with his world, to keep within bounds the region of the unexpected,[1] and to resist the shocks of his environment. But only very partial success has attended any of his efforts to feel quite at ease in his world. He never seems able to come to the end of the experiments by which his experience is carried on; and never seems able to come to the end of himself. Most, if not all, other types of living creatures seem to have accomplished their round of experience, and to go no further forward, after a comparatively brief period of experimental intercourse with their world. Their organs seem perfected quickly and their repeated exercise creates no novel situations. But—

> Man, with labour born, awakes to sorrow,
> When flowers rejoice and larks with rival speed
> Spring from their nests to bid the Sun good-morrow.

While even with discipline and experiment he can never quite escape the risks of error, mistake and misadventure, we find, however, that some forms of experience are carried on with greater facility, greater certainty, and greater success than others. Let us illustrate this point by reference to certain levels of experience.

It is obvious that unless certain levels of experience were from the first carried through with the minimum of subjective selection, the conservation of the individual would hardly be possible. If all man's efforts to enter into relation with his world were as difficult as the fulfilment of his higher ends, man's life would be a succession of perplexities, shortened by inevitable disaster. As the result, no doubt, at least partly, of the evolution of life on the globe, and of human life in particular, the individual begins the career of his life structurally and functionally preformed and prepared to occupy

[1] It is not so much the unknown as the unexpected that disturbs man's life; the unknown only concerns him as a possible source of expectations.

the level of sense-experience, and also to a great extent the level of perceptual experience. He has but to open his eyes and he enters the realm of light and colour, without any conscious effort and with relatively complete success from the first. By the possession of specific organic senses the individual is mortized to the world about him from the start. This level of experience is not only rapidly acquired but readily developed: mistakes are corrected with facility; and our selective interest in parts or aspects of the experience are easily cultivated. The use of the senses is doubtless capable of high refinement of adjustment. The degree of refinement varies much from individual to individual. But everyone seems early to reach a stage where, under the limitations of his interest in this realm of experience, his sense-experience and his perceptual experience become relatively stable, secure, calculable and certain, not only for himself, but for other human beings associated with him.

On the other hand the emotions—no doubt, like sense-experience, rooted in the past history of organic life and bringing the individual quickly into relation with his environment—do not so easily provide an experience which is uniform and reliable in its procedure. Emotions, as we say, readily lead the individual astray. They require from the first constant guidance, discipline and regulation. By cultivation and restraint, more especially through the assistance of social intercourse—which depends for its procedure so much on the emotions,—the individual does arrive at relative stability in his normal emotional experience. But his emotional attitude to his world never assumes the uniformity and reliability characteristic of sense-experience.

The success which has been attained by man at the level of intellectual activity or reflective experience seems, in the light of man's history, inferior not only to that achieved in perceptual experience, but even to that found in emotional experience. The difficulty which the vast majority of men find in carrying through any intellectual process to a finish,—i.e. in carrying it through with such cogency and connectedness as to

remain beyond alteration,—is indeed one of the most remarkable characteristics of man's life. Success, so far as attained at all, is limited to very few individuals; and except in certain special sciences, the few do not always agree with one another in the final results. Continuity and uniformity of intellectual procedure from one generation to another seem most difficult to establish. The whole outlook in some sciences seems at the mercy of a crucial discovery or power of insight reserved to a privileged individual; and man's entire intellectual attitude to his world may be recast by some sweeping generalization or new quasi-imaginative vision.[1]

In moral experience, on the other hand, the individual reaches a degree of success in his adjustment to his world which is remarkable, in view of the variety and great complexity of the nature of individuals with whom he comes into contact in the maintenance of that experience. In morality there has long been a stability, a relative uniformity and a continuity of experience, which have hardly been secured outside the levels of sense and perceptual experience. This is no doubt due to the reciprocity of the relationship between individuals by which this experience is constituted. In any case man's felt kinship with his fellows, which must have gradually evolved after epochs of undated struggles in the past of the race, has become a rooted emotional disposition, and has expanded beyond the confines of family, tribe, or even

[1] In only one region of scientific experience do we find constancy of thought, approximate uniformity of thought between individuals, and relatively reliable continuity from one generation to another. This is in those sciences which furnish a mere descriptive classification of facts falling within perceptual experience and collected by critical observation. The range of knowledge of this kind is already immense. It is indeed practically inexhaustible, the only limits being those determined by our powers of observation assisted by mechanical means. But this stage of scientific experience is but the beginning of the process involved in this level of experience. It is far from the coherent system of precisely connected definite concepts in which the scientific attitude is fully realized. That, however, description of facts found in perceptual experience should lead to so little variation and disagreement between individual minds, is a very interesting confirmation of the greater stability of perceptual experience above pointed out.

nation. Communities have arisen and endured for long periods of time; and, while they lasted, have been so organized as to give individuals relative security in the present and confidence in their future. And the more freely individuals enter into relationship with each other, the more do they seek to increase fellowship and the more capable of interadaptation do they become. Institutions are created within the wider community of a nation which intensify intimacy of relationship. The conditions of interrelationship have been discovered, laid down by prescription, and supported by penalties. In certain spheres of moral experience, indeed, men seem to have found and fulfilled all that this form of experience can supply. Some even go so far as to say that the direction along which success in this domain of his life can be achieved, is now known beyond doubt. Whether this be so or not, and whatever be its meaning, at any rate it indicates that human beings have in the course of human history attained a high degree of stability and satisfaction at this level of experience.

It is equally clear, however, that in its widest extent the growth of man's relationship to his fellows is far from completely realized. Few would say that the individual interest has been harmonized on a great scale with the general good of a single community, still less of all communities. Few would deny that, in many important ways, most human beings are still strangers to one another. And as long as human creatures still struggle against each other for existence, and on occasion destroy human lives in wholesale slaughter, no one can maintain that man has realized all that is implied in moral experience.

VIII

(3) A last point calls for brief consideration. It arises to some extent from what has just been said. All levels of experience involve some experimentation before the consciousness of individuality is securely established in each case; and in some levels a greater degree of success attends the process

than in others. It has now further to be noted that at some levels of experience the individual finds a greater fulfilment of individuality than at others, is conscious of being more completely realized. This is disclosed by the fact that the individual lays greater stress on the importance or value of some forms of experience than on others; and that when he has to choose—as the varieties of experience sometimes compel him to choose—between one type of experience and another, his choice is not decided arbitrarily but by reference to some standard of satisfaction by which he distinguishes higher and lower. Thus the scientific attitude towards the world gives way at times before the demands of moral experience; in like manner, the level of sense-experience, or it may be emotional experience, may be subordinated to that of experience gained through science.

It is easy to see why the forms of experience come to be thus arranged on a scale of values. The individual is one and single in all his functions. All the forms of experience fall within the confines of his individuality; and, on the other hand, the process of experience consists in discovering what these confines are, in determining and establishing them. The aim throughout is the fulfilment and, in that sense, the satisfaction, of his entire individuality—the attainment of completest expansion with completest concentration. But at no stage in the process does he find the whole of his individuality at once, all the detailed expressions with the integration of all. This is inevitable, partly because his experience is the growth of a living individuality which is as yet very far from its ultimate term; and partly because the finiteness of his capacity only permits of his exercise of attention in one specific direction at a time. Thus every stage of his life sees him realized only in one way, in one form of experience; at no stage can he, so to say, experience all his experiences at once. Hence, since he seeks to attain completeness of individuality and can only find himself at one level of experience at a time, he arranges the forms of experience on a scale of value, thereby implying that individuality is not exhaustively expressed in

any one part of experience, and that in one form it is more fully realized than in another.

The arrangement of the forms of experience on a scale of value is thus entirely congruous with the general character of human experience. The procedure in determining degrees of reality is in ordinary life for the most part involuntary, and, so to say, under the instinctive guidance of the vital need of self-conservation. Whether and how far it is possible to construct a scheme of degrees of reality which could be regarded as holding universally for all individuals, is a subject which cannot be considered within the limits of this paper. On this matter we may be allowed to make two observations in conclusion.

On the one hand, we cannot construct with certainty such a system of degrees of reality or value until we can grasp with exactness in what the state of completed individuality consists. The present transparently incomplete development of the individual makes this impossible. We may, however, feel sure that completed individuality must be established along the lines of our actual experience as hitherto developed, and that it must in some way be a fulfilment of those main ends which this development has disclosed, towards which he still strives imperfectly, and in the pursuit of which his further growth must consist. These ends are what we call truth, beauty and goodness. The synthesis of these seems as yet beyond us;[1] the attainment of each even separately is pathetically incomplete. We endeavour at best to combine them by way of compromise or co-ordination, and we feel that in the final result each will contribute to the attainment of complete individuality.

On the other hand, it seems clear not only that the fulfilment of individuality will be the discovery of our own complete reality, but that the complete reality of our world will be disclosed at the same time. For in the result, as at the beginning, the one is only possible in relation to and through the other.

[1] The attempts to reduce them either to a common term or to one of these ends regarded as primary, never seem successful.

The form which the result must take is that of religious experience. For in his religious experience, at its best, the individual is aware of himself as securely established beyond the reach of mutability. He regards himself as eternal and as at one with the eternal. His spirit is fulfilled in meeting the Supreme face to face. From this, he maintains, nothing can separate him; and therefore in relation to it, and only in relation to it, he finds abiding individuality. In principle, religion neither extinguishes nor transmutes his singleness of individuality. It arises out of and seeks to satisfy the demand for stability of individual life when confronting all finite conditions and objects—past, present and to come—at one and the same time. The security of being, which is thus sought, is therefore the opposite of extinction or absorption. Without the maintenance of the individual there would in fact be no experience in religion any more than elsewhere. And the consciousness of relation to what is transfinite gives a sense of abiding stability, impossible to attain when the individual is conscious of being but one among many other finite beings. Hence, while in religion the individual transcends all other finite objects,—defies the shocks of finite things and their incessant change,—he does not transcend his own finiteness and limitations. He remains a finite individual confronting what is transfinite. Religious experience, like any other experience, is thus a process, a process which takes account of the factors constituting his individual life from first to last—emotion, thought and action—and, like experience generally, is one of gradual self-discovery and discovery of the transfinite. It is carried on in ways quite peculiar to this mode of experience, those e.g. of renunciation, submission, and reconciliation. The consideration of these, however, is unnecessary for the purpose of this paper.

PRINCIPAL PUBLICATIONS

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LIFE AND PHILOSOPHY

By BERNARD BOSANQUET

Born 1848. Harrow and Balliol College, Oxford;
Fellow of the British Academy.

LIFE AND PHILOSOPHY

PHILOSOPHY, I take it, is its own criterion. No experience of life, nor any partial aspect of knowledge, can be more to it than a suggestion or a stimulus. Nevertheless, since experience in the broad sense is all we have, our work as students of philosophy must take its form and colour from what we have most deeply made our own in life; or indeed it might be as true to say that what we have most deeply made our own in life has been selectively determined by the same leanings and impulses which our philosophy has expressed.

Thus, being asked for some account of my philosophy, and believing that if it ever could have interest for anyone, that interest would surely be absent from any brief abstract or bird's-eye view of what I have tried my best to exhibit always in concrete detail, I am going, in the present paper, to say something about the things which I have most deeply made my own, or, in a word, have cared for most in life, attempting to indicate throughout their respective functions as theoretical impulses in my work. Of course it may be said: "This is autobiography, not philosophy; what is it doing here?" But what I mean is not exactly autobiography; it is referring one's theories to the needs which drove him to them; needs partly springing from life and from current experience, partly again from the previous theory of others. I am sure such an account would interest me in connection with anyone whose thought I at all value; and it seems to me my best chance of explaining my own attitude in a small space so as to interest anyone else.

On this line I will begin without further preface, and will do the best I can.

1. A friend, a very competent philosopher, told me the other day that he had been greatly helped in understanding my social and political theory by having paid a visit to my old home on a large Northumbrian farm. It is a place where for several generations there has reigned a practice of business efficiency together with a spirit of cordial co-operation and neighbourly kindness. As Huxley once said—I quote from memory: "In teaching a boy science you should let him feel the pull of the magnet for himself," so it seems to me that a constant habituation, from childhood up, to the feeling of the co-operative will and to what Miss Follett calls "the art of living together," is a sound starting-point for social theory. After such a habituation the doctrine of the real social will, for example, comes to one as the recognition of an obvious and solid fact; and the difficulties which are raised on the ground of counter-volitions, tensions, and lacunæ in its formation, seem to be nothing but what you expect in speaking of a will at all. "Where, in particular, are you to find the actual social will?" Well, where in particular are you to find your actual will or mine? Only in the several successive and distinct decisions of every day, hour, or minute? Surely this is to abandon the idea of a man's will. What you can say, and all you can say, is: "When one lives with him, and has learned to act and feel with him, one sees that on the whole this is what he wants and what he sticks to." And for a social body, if you have in yourself any social habit at all, you can say this much at least, and often more. For the social spirit is more fully expressed, because of the needs of external co-operation, than the private will. It is indeed the completer fact in which the private will finds form and stability.

And so with "the art of living together." To have been accustomed to it from day to day, and to the constant discussion and consideration of its failures and its successes and their respective reasons, is a leading which, "when the principle comes," as Plato says, introduces you to a world of problems, intricate and arduous enough in all conscience, but

one of which the secret is after all in the main an open secret—the concrete unity of life as it is lived, overriding abstractions like bare pleasure or duty, for example, or like the meaningless opposition of mere egoism and altruism.

When things of this kind, the will and the art, have taken their place in the basis of life as rooted interests, they continue to develop their effect throughout the practical and theoretical elements of the environment, such as are suggested for my own lifetime by the names of T. H. Green, Arnold Toynbee, and C. S. Loch; so that any scepticism which takes the line that such things are not solid realities and ruling elements in the world, simply falls dead, as if it were denying that steam or electricity can do work. For a student, then, to draw out their nature as given in social and political life, to place them in relation with other forms of spiritual being, and to exhibit the comparatively incoherent and artificial nature of those doctrines "of the first look" on which individualism and its pseudo-liberty and pseudo-sovereignty rest [1] becomes a compelling and inevitable task. And it is a task which readily connects itself with other endeavours to exhibit truth and reality in the light of the criterion which is the positive non-contradictory whole.

2. Another early experience was of great significance to me, just when I was beginning to reflect critically on the New Testament narrative. I was persuaded, I suspect for the good of my soul, to go to hear at a chapel in London the distinguished preacher Dr. Moorhouse, afterwards Bishop of Manchester. After discussing some of the current criticisms on the New Testament story, the preacher broke forth with extreme emotion: "But what are all these reasonings to me? I *know* that these things are true." I left the chapel with two convictions firmly fixed in my mind, convictions which seemed then to have become explicit, but which, of course, had long been forming themselves. The first was that such a speaker evidently had hold of an experience which brought

[1] In all forms of individualistic liberty or of the doctrine that might is right.

him strength and inspiration. The second was that this experience could not conceivably be what he seemed to me to identify it with (here I may have misjudged him, but I am clear as to the impression I carried away at the time), viz. an assurance that certain events in history had actually taken place.

Convictions like these, once more, adopted into the basis of thought, called one in principle to the task of interpreting such experiences. If they did not indicate facts in history, what did they indicate? Plainly, it seemed, there were values in life, and accessible values; but it was possible to look for them in the wrong place. And where ought one to look for them? The need of a criterion to distinguish the accident from the essence became obvious; and this being so, the notion of "the real thing," that in the experience which affirmed and maintained itself with power, what drew the rest with it and held it in place, in short, of the whole as a criterion, could not be far off.

3. In groping among the connected problems thus forced upon the mind, one came perpetually across a current phrase—"the other world." Even to enumerate the multiple forms of this conception, and its antitheses, would demand a considerable space. Their common essence lay in the connection or opposition of value and remoteness.

In this context two theoretical influences, closely allied to one another, made themselves emphatically felt, and one experience which was at that crisis almost new to me. The theoretical impulses were those of Plato and Hegel: the relatively new experience was that of æsthetic value.

Plato, in particular, came as a revelation; not as confirming the dualism of "this" world and "the other," but because, against one's hazy expectation, and in opposition to the current and more or less popular legends of his meaning, it was so plain and obvious that his true passion was for the unity of things and, as guides to its nature, for science and goodness. Relativity and appearance, indeed, were not left out; but the amazing point, in contrast with the Plato of everyday acceptation, was the way in which they came in. If his

main passion was for the unity of the universe, it was no less a passion for analysing, as relative to the impotence of finite minds, the varying levels of the actual scenes and experiences in which they severally and particularly live. His hunger for science and his passion for goodness obviously meant that "the other world" was not in its nature remote, but became here and now for you if you could see it and live it; and the two passions coincided in the vision of the universe as that which alone could satisfy the whole intelligence and the total desire. The law of value, as he laid it down for all time, "that which is filled with the more real, is more really filled," together with his doctrine of the increasing concreteness and vital stability of the higher experiences, made an end of dualism in principle, though fragments of dualistic formulæ might float in the ocean of his thought undissolved for the moment.

More particularly, the doctrine of the divine spirit as present in the human society, inherited from Plato by Christianity, and interpreting and insisting upon such social education and habituation as that of which I previously spoke, completed in principle the reconciliation of "the other world" with "this"; and when Hegel told us, in so many words, that the object-matter of philosophy was never anything abstruse and remote, but always something concrete and in the highest sense present, the ghost of the other world was finally laid, as in Plato it had been laid in principle.

Only it was to be borne in mind that its otherness was not spoken of without a reason. You could and often did live in a world intellectually, morally, and æsthetically mean and horrible, and because of this it was desirable and indeed indispensable to see and feel in its whole intensity the contrast with the "other" world, which yet, to apply St. Paul's expression, "was not another."

4. A new experience which reinforced and further interpreted the sense of socio-political unity, and the vision of cosmic unity as postulated by science and goodness, was, as I said, the æsthetic experience.

The genuineness of such experience in those who are not specially endowed for its reception is apt to be held doubtful. On this point, so far as it touches the philosophical student's right to comment upon the significance of beauty, I will make just three short observations. First, it appears to me that recent instructed opinion, while rightly intolerant of spurious æsthetic sentiment and gossip, is willing to concede a serious value to the simple love of beauty in unpretending minds. All who go far with William Morris are bound, I think, to such an attitude. And secondly, I would urge that the world of poetry, which is in some ways free from the technical conditions, which in the specialized arts demand special endowments almost physical in nature, is not to be treated as outside and alien to "art"; but rather exhibits the essence of art at once in its highest and in its most accessible forms. A lover of poetry is not disqualified for æsthetic experience though he were blind and deaf. And thirdly, what perhaps would have been by itself enough to say, people should take our suggestions on their merits, as they find them. It is absolutely and totally impossible to predict how much truth this or that mind may get from a given basis in experience. It is the great test of minds; and yet there is in it also an element of luck. You cannot tell till you try.

Now this æsthetic experience has a prerogative bearing on the meaning with which we recognize "another world." It gives us a present world, a world which is even one with the world we live in, but yet is twice-born, is at once its own truest self and the profoundest revelation that itself can convey. Words like these, indeed, must even weaken the experience they indicate. We all know it in fact, whether or no we care to describe it in general language. We know that it takes us into a new world, which is the old at its best. In this aspect the æsthetic experience has a profound speculative interest, and after coming under the influence, first of Ruskin, and then, and most especially, of William Morris, I was led to trace its operation on the passage from Kant's antitheses to the concrete and objective ideas by which, in the last

decade of the eighteenth century, the beginnings of nineteenth-century philosophy took form. In beauty we have the meeting-point of Nature and Freedom, Kant has said in effect. In beauty man is free without ceasing to be sensuous; or again, Poetry and art have two conditions: they must arise above the actual and remain within the sensuous. These are the sayings of Schiller; and it was the unity thus recognized of the universal with the particular, of freedom with necessity, of the spiritual with the natural, which in Hegel's judgment, passed into the principle of knowledge and existence in Schelling's philosophy, which was the first fully to recognize the absolute stand-point, and recognized it in this synthesis. Here the whole apparatus of traditional dualism became in principle once and forever obsolete. This world and the other, the *a posteriori* and the *a priori*, the natural and the supernatural, with all their family, taken as signifying antithetical realms of being and experience, were for the future idle tales.

But at the same time, as we urged in speaking of Plato, the significance at which they had really aimed was not abolished but intensified, and the opposition between the worlds of truth beauty and goodness, and those of falsehood ugliness and evil acquired a new poignancy from being referred to a common root in the spiritual life.

And the paradox of beauty has a further suggestion, to which we shall return. It is not so very far from the essence of the beautiful as interpreted in the sentences cited above to the essence of religious faith which has been described as "rising into another world while remaining here."

5. Yet another aspect in which reality presents itself as a concrete unity replacing antithetical abstractions, helped to carry forward my thought in the direction just indicated. Attention had been intensely focussed in England on the Hedonistic controversy, especially in connection with John Stuart Mill's *Utilitarianism* and Henry Sidgwick's *Methods of Ethics*. For many of us the publication of Mr. F. H. Bradley's *Ethical Studies* in 1876—T. H. Green's conceptions being known at the time to his students through his lectures, but not yet

made public in a treatise—was an epoch-making event, not merely as restating and concluding the discussion of Hedonism, but because of a philosophical significance which far transcended that particular subject-matter. And I confess that so far as my knowledge of subsequent English theory carries me, it still appears to me surprising that the strictly philosophical implications of this work have not produced a more complete transformation, not merely of ethical doctrine, but of the entire interpretation and stand-point from which the permanent value of Kantian ethics can be and ought to be approached. It appears to me absolutely plain that by developing the conception of "law universal" into that of a concrete system, embodied in the actual whole of existing institutions, and yet furnishing through its particulars a content in which the universal end lives and grows within the individual will, a meaning is given to the Kantian ethical idea which Kant very likely would have disowned, but which really satisfies the theoretical demand which his system recognized but failed to meet. From the same line of thought, in connection with the factors insisted on above, we get suggestions for dealing with the demand involved in the Thing-in-itself or the Noumenon, restoring to the latter term its true and Platonic meaning of that which is most fully and determinately experienced, and superseding the ridiculous usage in which "what is understood" had become almost equivalent to "what cannot be known." Here, again, the ghost of the other world is laid, and the concrete universal of experience is established as the typical reality.

But the implication takes us yet further, and the incompleteness of the moral stand-point involves an appeal to the religious experience. This, as we saw just now, is akin in its meeting of extremes to the æsthetic attitude, and is the province in which the antithesis of this world and the other is the most poignant and fundamental experience, and its transcendence is the deepest need of man.

From this study of the religious experience, as from the treatment of ethics proper in the same volume, I should have

expected a greater effect upon contemporary philosophy than it appears to have produced. Partly its influence must have been diminished by the fact that it soon passed out of print and has remained inaccessible to most students ever since. One constantly observes that arguments and ideas derived from it appear unfamiliar to most writers of the day, and when reproduced by others, even if favourably received, are received as novelties. Partly, too, I am convinced that the book, though brilliantly written, suffered from the excess of thought and experience which it contained. It is to most books on philosophy like Dickens or Meredith to most novels; a page of it would dilute into a hundred of any other. At this point I have in mind especially the fundamental contrast between the moral and the religious attitude, according to which morality lies essentially in a recognition of the "ought-to-be" which is not (the "sollen," the "dover essere"), and therefore involves an individualistic conception of perfectibility (individualistic, because its whole point is the relation of the ought-to-be to the individual will) in particular finite spirits throughout a temporal progression. While religion, implying as a subordinate feature all that morality can imply of duty and self-improvement, is understood to lie essentially in a union by faith and will with a real supreme perfection in which finite imperfection, though actual, is felt to be transcended and abolished. The very wide-spread influence of the ethical culture movement and a progressive temper akin to it, throughout our higher civilization, appears to me to show that the philosophical lesson typically inherent in the argument to which I am referring has not at all been mastered by the enlightenment of to-day; and that, in the latter's lofty aspiration to a pure humanistic ethic, it has lost hold of the truth which had been won by religion in the ancient doctrine for which justification was essentially by faith. Mysticism, on the other side, keeps alive the genuine insight; but mysticism in its full contention is not everyone's affair, and it is distressing to see the central and sober realities of religion divided between the ethical and the mystical extremes, in each of

which, taken apart, there is an inherent tendency to extravagance. Compare Benedetto Croce with Jakob Böhme, and ask yourself if a reasonable man could sit down with either. Certainly, compared with these, the "Concluding Remarks" of *Ethical Studies* embody, in my judgment, a view as much deeper than the one as it is saner than the other.

6. All the above modes of experience, which in so many ways have proved their attraction for the mind, are linked together in a central enthusiasm when our attention is thoroughly focussed on thought as the determination of reality, and on logic as the theory of thought.

Current experience may be stimulating through its negations no less than its affirmations; and of all the platitudes by which it has from my mind's first awakening driven me to rebellion, none were more superficial than those implied in the phrases "pure thought" and "mere logic" or "merely logical," whether employed by the professed friends of reason or its acknowledged foes. If, indeed, pure thought were taken to mean genuine thinking, as contrasted with irrelevant associative transition, that might serve well enough, and would fairly coincide with the meaning which I shall ascribe below to what can genuinely be called "logic" and "logical." But pure thought as an ideal, whether imputed or accepted, of thinking which has learned nothing from the universe and in no way determines it by affirmation, exhibits itself to my mind as the very type of impotence and self-contradiction, false alike as an imputation by the foes of reason, and as an aspiration of its would-be friends.

Thought, as I understand the matter, is always an affirmation about reality through the process of particular minds. Its conception is correlative to that of reality. If you ask what reality is, you can in the end say nothing but that it is the whole which thought is always endeavouring to affirm. And if you ask what thought is, you can in the end say nothing but that it is the central function of mind in affirming its partial world to belong to the real universe. Thought which deals with no given, and constructs no order is a *res nihili*. Thus

it is an incomplete description even to qualify thought as we did just now, by the term "function of mind," without calling attention to its other aspects as the self-revelation of reality. The "I think," of which so much has been heard, is on one side a deceptive phrase. It would avoid misapprehension if we were rather to say (Mr. Russell has suggested it, and I have urged what amounts to the same point): "It thinks in me" or "my world in me takes the shape that——." As Green said long ago, the essence of thought is not in a mental faculty, but in the objective order of things. We bring the two sides together if we say it is the control exercised by reality over mental process.[1]

The same thing in principle with the fallacious idea of "pure thought" is the popular conception of "logic," "mere logic," "a merely logical contradiction," "the strictly logical application of a principle." Our great and splendid neighbour across the Channel believes itself to be especially endowed with a logical genius, and we believe ourselves to believe it also, and with a significantly proud self-depreciation we say of ourselves by contrast that we are not a logical nation, that we do not love logic; that England—was it not Disraeli who told us so, and did he say "England" or in general terms "a nation"?—"is not governed by logic but by rhetoric." So that it seemed to me "like a sober man among drunkards" when Dr. McTaggart with his indomitable courage declared that "no man ever went about to break logic, but in the end logic broke him." What we Englishmen believe in, then, I hold, after all is logic, complete, concrete and solid inference, and it is this which we sometimes contrast with the "merely logical," or the "purely logical contradiction." We feel the full nauseousness of modern superficial sentiment on this point when we read in a clever article that "men are busied to-day in lifting the jewel of human vision out of the mire of logic."

[1] This sentence is almost a verbatim quotation from Mr. Bradley. In the present paper I am shamelessly treating as my own what has delighted me in others, both to spare the reader references, and because the true owners might not acknowledge their property as I employ it.

The writer might reply—I hope he would—that the logic on which he pours contempt is just the "mere logic" which I am repudiating, and that therefore he is making the same point as myself, in obedience to Plato's magnificent educational revelation, and not, as his words suggest, in angry caricature directed against it. But I am afraid he cannot really mean that. His language may be aimed against formalism; but I feel pretty sure he is unaware that formalism is not the essence of logic.

To me, then, this whole conception of "mere logic" was from the first repulsive. It drove me in the opposite direction. To me, from the first, logic was no isolated discipline reposing on axioms and principles peculiar to itself, but was simply the clear perception of the way in which, through their connection and co-operation, the natures that compose the universe frame and mould the assertions which constitute our thought. A contradiction, for example, I took to mean, as explained by Plato, a collision in which different elements of experience attempt to occupy the same place in the same system. By a "logical" contradiction I understood not something different from this, some play of formulæ by themselves, but any such collision distinctly apprehended in its typical conditions, and, if fully stated, in the typical modifications of them by which it might be removed. The logical adherence to a principle did not mean the literal and unconsidering endeavour to apply it everywhere by itself, down to the bitter end—this would be *a*logical. It meant the appreciation of it in all its bearings, as arising from its necessary implication, when fully considered, in some living individual reality. The universal, the very life and spirit of logic, did not mean a general predicate, but the plastic unity of an inclusive system. The syllogism itself, in its central paradox typical of all inference, the new springing necessarily from the old, represented, if Ruskin is right, in the work of the early painter of the Spanish chapel at Santa Maria Novella in Florence, by the living and leafy spray, thus ranks itself as the identification of our mind with the very growing-point of thought,

the leaping and vital flame by which a whole system exhibits its concentrated life within a single focus, creating a something which is at once the old in the new and the new in the old.

Thus it always appeared to me that of all silly superficialities the opposition of logic to feeling was the silliest. Plato's principle seemed so obvious and so inevitable, that it takes the whole object to elicit the whole mind. And as Aristotle told us in his *Æsthetic*, no object is a whole which is not logically coherent. This is one of the truths which is always admitted, and never applied. The emotional absorbing or carrying power which belongs to great ideas, great characters, great works of art, is measured by the depth and spread of their roots and sources in reality; and this again is measured by their logical power, their power to develop and sustain coherence with the whole. It is a blundering rejoinder to say that bare consistency is a poor ideal, and a fraud upon reality; bare consistency is bare because it is slight and shallow. The incoherence of great creations and great characters is a coherence with the profounder things; and the profounder things are the things that more thoroughly penetrate the real.

Thus, in the genuine logic, which embodies the natural impulse to seek truth and reality in what satisfies the more complex demand, we have "the whole" operating explicitly as the criterion. Implicit in all the modes of experience which attracted us throughout, it is now considered in its own typical manifestations, in which the idea of system, the spirit of the concrete universal, in other words, of individuality, is the central essence. From the first my delight was in the successive shapes in which this essence had embodied its advance, as the exhibition of the comprehensive and coherent character of the whole, and of the interconnecting modes of implication, known as inference, by which the world of fact and truth made its elements available for the supplementation of one another by way of development and correction.

I will illustrate the superior effectiveness of such a conception to that which acquiesces in the traditional formulæ, first,

from the difficulty which arises owing to the possible ambiguity of the middle term in every syllogism.

A deadly poison is one that kills
Arsenic is a deadly poison
∴ Arsenic kills.

Of course the conclusion, read as a universal statement, is bad. The middle term in the major premise is read as implying a fatal dose with the conditions necessary to its action. In the minor premise it may just as well be taken to omit these particulars, and merely to qualify "arsenic" as "combustible" qualifies "wood." And such ambiguity seems inevitable. You could always, though not always with equal plausibility, put a double sense on the middle term. You could always say that to preserve a single sense in it, it must be specially interpreted.

But this trouble merely comes of working with bare formulæ in their text-book shape, to which no one would think of restricting himself in a serious inquiry. You would have the same difficulty in any argument reduced to a detached formula. The formula of the syllogism, for all that, is quite sound. But of course it is only a beginning. You cannot guard against all misapprehensions in a couple of sentences. For a serious conclusion you must cover a large area of investigation; and you must exhibit all your reasons or conditions or middle terms in graduated series, so that where one meaning leaves off another begins, and the whole ground is covered, each nexus being linked to its special and appropriate consequence and explicitly distinguished at every frontier where it passes into any other. Then, of course, "deadly poison" would be one of a series of characters determined in quantity and quality, and all together laying down precisely the conditions of fatal administration continuously with those which exclude it. You would have in place of a nexus merely named by a general name a concrete system of concomitant variations. And of course in the use of common language and common sense something approaching to such a system is

presupposed. You supply in your mind the typical conditions which are obviously intended to be assumed in the statement.

When this is done, either implicitly as in common sense or explicitly as in science, there is no room for your middle term to go wrong. The exhibition of the relevant system holds the particulars in their right places. It is like the point which I believe is now recognized about the inheritance even of Mendelian characters. *All* inheritance whatever is conditional on environment. There is no absolute or abstract heredity. An organism cannot develop any character except under conditions under which it can develop itself. Thus, also, of course, we assume common sense in the interpretation of current language. We must postulate, in interpreting, the conditions which a statement is obviously intended to imply.

A kindred advantage is obtained in the treatment of error. If we understand the judgment as an isolated relation, apart from its connection with knowledge as a whole, the treatment of error becomes—what we see in Mr. Russell's *Analysis of Mind*, p. 272. If words take their meaning from facts, each to each, every fact being equally taken as a fact, and if the objective reference of propositions, which are true or false, is derived from the meanings of words by putting them together, then prima facie no proposition can be false whose words have meanings. And you have to introduce such a metaphor as pointing to or away from the fact to explain the existence of false propositions.

But if the matter is regarded with reference to the whole system of knowledge, we see that facts are differently considered when asserted as realities and when entertained as mere meanings of words. In the former case they are taken as elements in the real world ; in the latter they are attended to each for itself, out of relation to the whole system. So considered, they are not treated as actual facts, but as possibilities. They are isolated by the fact that we ignore the conditions under which alone they can belong to reality ; and, thus isolated, we call them possibilities because not in a position to be actually or unconditionally affirmed, though we

know that under some conditions or other it would be right to affirm them. For ultimately, even ideas which are thus merely entertained, are in some sense or other taken as representing facts which belong to reality. Thus there is room for a proposition which has a meaning and yet is false, viz. when a fact which is the meaning of an idea entertained as merely possible (conditional) is asserted as actual (unconditionally asserted). Possibilities are the source of the false objectives which we are told are not to be found. I believe I was the first to use in English the term objective reference, precisely in order to make the distinction which Mr. Russell's use of it confounds: the distinction between meaning and truth, between that "objective reference" which is the meaning of a word conditionally predicable, and the "affirmation" made by a proposition which predicates unconditionally.[1] Error arises then quite simply, when the whole of knowledge, as present, through insufficient determination leaves alternatives possible, and there is therefore nothing to save us from affirming one which the reality, if more fully known, would be seen to exclude. The selection of the alternative we assert, its conditions not being fully known, must be held prima facie for us a matter of chance; and unquestionably there is room for the case insisted on by a certain view, that moral perversity has much to do—some say everything to do—with error. We are in a lacuna of the determining system, and anything may turn the scale.

I cannot think the difficulty about error would be felt as much as it is, if we brought to bear on it our common sense and our most trivial everyday experience. I find simple and obvious examples every hour of the day. It, again, is a favourite province of observation, which has greatly influenced my theory. I come in from a walk, and cannot find my handkerchief. I am sure I put it back in my pocket. "No doubt; but was it not your overcoat pocket?" I want to take my black pencil out of my pocket; I pull out a small,

[1] Author's *Logic*, Introduction 2. ii; Bradley's *Principles of Logic*, p. 4, footnote.

smooth cylinder two inches long, but it is my blue pencil. I go to the electric switches to turn the downstairs light on, and I turn the upstairs light off. Always there is some point clear and settled; but under it there are varying possibilities, alternative cases, and between these my present consciousness has nothing to decide it. I may not even know or recollect at the moment that there is an alternative. Of course we must remember that the error, when being made, seems truth; and I may take it *faute de mieux*, because I can see no better alternative. Thus, What is freedom? You are sure you mean by it a state in which you can assert yourself. But if your thought has not taken you beyond this, then you may jump at the alternative under it which first comes to hand. "It is absence of restraint." And you may never hit on the further alternative which the reality further pursued would give you. "It is capacity meeting opportunity." The reservoir of possible error, then, so to speak, is that of facts whose conditions are partially or very slightly known, the storehouse of possible alternatives. Every general name suggests a number of them, cases possible starting from it alone. Is a round square intelligible? Why, yes, prima facie. We know "round" and we know "square." And formally, therefore, we may try to treat "square" as a possible alternative under "round," or vice versa. And so the phrase designates a problem which we can attempt, though we cannot solve it.

All this follows from the graduated dependence of every so-called "fact" on the whole system of reality as present in knowledge. Error rests simply on inadequate determination within a system, which leaves alternative possibilities open, i.e. dependent on unknown conditions.

7. This recognition of the spirit of logic as the essential criterion of value and reality throughout experience, in accordance with the principle that it takes the whole reality to elicit the whole mind, was for me intensified from the first by a strong repugnance, in the moral and religious field, to finding freedom in anything that savoured of chance or caprice. "Necessity is laid upon me" seemed in all the higher walks

of life, in conduct, in religious unity, in art, and in love, to be the utterance which the human soul at its fullest stretch demanded and embodied. It was a trivial and external reinforcement of this conviction, but so far significant, to reflect how hopeless and inconceivable would be freedom of thought or action in a world where chance prevailed—and if admitted at all it must prevail, for how be warned of its intervention here or there?—that is, where process showed a solution of continuity, and synthetic unity was severed. One could not but observe how deeply, in confirmation of the full doctrine of life-mind in Plato and Aristotle, the roots of intelligence sink into the foundations of nature, and how, as the behaviourist tells us to-day, the salient features of thought, the habits which exhibit the simplest operation of what will be the logical universal, are traceable in organic beings long before they reveal themselves in explicit consciousness. It seemed plain throughout that the basis and character of freedom lay not in simple initiations but in an equipment capable of embodying extraordinarily delicate responses to extraordinarily varied environments, and that it is on capacities of such a nature that the possibility of self-realization in the universe was and essentially must be founded. Thus for freedom as for truth and reality, freedom in society, in morals, and in all action and expression, once more the condition and criterion was the participation in the whole, by union with which alone the finite spirit could become what it had in it to be.[1]

[1] The import of " participation in the whole " may be set in the clearest light by contrast with the recently emphasized distinction between thinking thought, or thought in its pure act, on the one hand, and on the other hand, so-called thought which has been thought, or the system of the universe as something presupposed and falsely conceived as transcending and limiting the activity of thinking thought, which alone is taken as the reality. The universe as " presupposed " becomes then a dead abstraction, a fetter or limit upon the self-creative mind, in contradiction with the " becoming " which is its law. So far as I can see, after careful study, this distinction must repose on a confusion between thought taken as the whole particular mental process, and thought understood, as it ought to be, in the sense of the control of mental process by reality. To make the former the process of the

What then is the true method of moral self-determination in which freedom is realized? It is an application, often instinctive and unconscious, of the criterion we have been discussing. Its motto is in a single sentence, "To be equal to the situation"—to realize, that is, the organized consciousness, the tradition, so to speak, of the self as a whole, in action which deals with practical problems as sound theory deals with such as are theoretical. Its object is to realize the greatest value, as the theorist's is to realize the greatest truth. This we see in the simple phrase of Xenophon's Socrates, noting the failure of the incontinent man, "He does not attend to the most important things"; or, as we should say, he is not guided by a true sense of values. This idea of study and habituation in the art of living is essential to the understanding of Socrates' conception of "knowledge of the good," which gives goodness the whole force of an overmastering professional enthusiasm comparable to that of the trained craftsman, so that habit is involved in the idea from the very first, and it is the root of Aristotle's conception of moral education, essentially one with that of Socrates as described in the *Republic*, instead of being, as is often supposed, its opposite. The identification of goodness with the trained and formed character, skilled and enthusiastic in realizing the ideal self which is the whole, has always

universe is ridiculous, as the leader of this movement avows.* But when we appeal to the latter, we are wholly out of range of any given process or becoming. There is nothing to answer our appeal except or besides the criterion of the whole which lies precisely in that varied structure of experience in which thought finds its standard, but compared with which it, actual thinking, is merely a single phase and appearance of the real. The failure of all thinking thought to include the whole in its living act is not a sign of abstraction or deadness in the whole, but a consequence of the essential limitation which affects all thinking in the finite mind. The true life is that of the whole, of which thought in the finite mind is a partial and incomplete revelation. The contrast of "pensiero pensante" and "pensiero pensato" precisely inverts the true relation. What really thinks is something more than any thinking act of ours.

* Gentile, *Spirito*, p. 12. Cf. however, *Sommario di Pedagogia*, vol. i. pt. ii. ch. 12, which seems to me his best utterance on this point, but inconsistent with his explicit principle.

been my delight; and I hold any intellectualistic interpretation of Socrates' and Plato's meaning to be an anachronism and a blunder. But I cannot go further into this matter here.

8. So far, I venture to think, the character of experience as a revelation of the world of values is pretty clear. It rests, in every special aspect, on ideal experiment, that is to say, on the experienced satisfaction which we attain, in proportion as in any form of living we find ourselves for the moment beyond the field of contradiction. And so far the conclusion to a real and absolute world of values rests on the suggestive force of these special experiences.

The question now presses upon us whether we can carry the matter further. Can we understand or appreciate the world of eternal values in its character as a whole? Have we any experience which stands to the theory of its ultimate nature as the special experiences were found to stand to the theories of beauty, of ethics, or of religion?

It seems plain that we can have no such experience completely. To possess completely the world of eternal values would obviously involve a total realization and solution of contradictions incompatible with the self-revelation of the universe through particular beings. Our inference to any total perfection must be what might be called a matter of concomitant variations, resting on the impossibility of closing the ideal advance, that is, of drawing a line where the argument and the experience of value can go no further. And we must notice the fundamental importance of being in earnest with these variations. I have noted above the passionate vehemence of Plato's belief in the multiplicity, as well as in the unity, which is actual in the universe. For it is all a question of the experience of spirits; and while in one sense nothing can be more actual than its gradations, yet in another it is all of the same stuff, penetrated with a symbolism embodying its fundamental unity, and pointing to a single spirit which runs through it all. I am not forcing upon Plato a modern idealism; I am only saying what is to me perfectly plain, that where grades of life and vision are represented as correlative to grades of mind,

there is an obvious basis and presumption for the idea that in an ultimate sense the whole means more than it appears either in the imperfect souls or to them.

I was asking, then, whether we could put our finger on any special experience which aids us in conceiving the totality of the universe as a being in which reality coincides with value, according to the glimpses which everyday living has been shown to afford us. And from this point of view it seems natural to turn to the current phrase above mentioned which exhibits strikingly the endorsement unconsciously set upon our conception of reality by the popular mind in its most active and various pursuits. The highest praise, perhaps, is felt to be conveyed by it in any and every topic of experience, when it judges of anything it cares for—a game, a speech, a policy, a play or a fight, a poem or a piece of music, a great religion or a great character—that in it you have " the real thing."

I suppose that, in its everyday use, this expression has two grades of meaning. The expert in a game or sport means by it, I imagine, that the thing is being done as that particular thing ought to be done—it belongs to the best of its kind. The more romantic critic may use it of love, or religion, or poetry, and then he will be beginning to mean not merely that it belongs to the best of its kind, but that it is the best thing in life. For me, if I may end with the method with which I began, the expression has always possessed a special fascination. It combines so many aspects, all of them good. It is what holds water, what is strong, what has stability, what is durable and permanent, what is alive and comes of itself, the whole object which calls out the whole mind, in a word, what *satisfies*. This is the logical character present in all the great experiences, in æsthetic and religious experience no less than in that which is explicitly logical and metaphysical.

Why should this strength and poignancy of the real thing—the touch of the essential flame—bring close to us the absolute ? I suppose, because its quality, being the most indubitable of experiences, is also uniquely and intimately in positive feeling what the term absolute expresses by a more negative approach.

"The real thing," we saw, concentrates strength and value in itself. It supersedes all else. When you have it, you have what in wanting anything, you want, or in believing anything, you believe in. It has swallowed all contradictions, and you can bring against it nothing from outside—there is nothing to bring. This is what, from the negative approach, the absolute says for itself. "I am all that there is—all the being and the value. You want nothing but me, and nothing beyond me can so much as be conceived."

Here in "the real thing" we experience the positive quality of the absolute, and at least begin to understand its power and right to be all that is. The intrinsic connection of reality and value becomes here transparent to us.

Thus, in this experience, we possess on the one side the characteristic quality of the absolute: on the other, the ground of its totality, the meaning of its absoluteness.

One word more on our experience of "the real thing." It suggests not only value at its height, but unity at its simplest. As in the middle region of practice and business, so in the middle region of reflection and critical common sense, we tend to sharp distinctions and would-be absolute divisions. But as in the deepest experience so in the simplest—the primitive experience which underlies and supports all other—we are in a world which is wholly one both with itself and with ourself. As in visible Nature, we are told to-day, there are no lines, so in felt experience there are no divisions. As the unity of the human race is not confined to the names that live in history, so the unity of the universe is not confined to the peaks where life touches its top. We live, it has been said long ago, and well repeated in the last year or two,[1] a planetary and telluric life as well as one that is animal and human, and this our indistinctness from our world is always with us in our feeling. Thus we begin with unity; it never leaves us; it accents itself as life grows full and strong; and again, perhaps, no less characteristically, as it is descending towards repose. In our simplest being, as in our highest activity, "the real

[1] By Alexander.

thing" comes to us as an absolute—not exactly as a one, only because a one implies another.

9. There is difficulty, no doubt, in maintaining our vision of the absolute throughout the middle region of conflict and division in which we principally live. But what has always pressed upon my mind is the extent of the things which we directly possess. We possess the rare moments, and we possess the simple universal feeling; we possess also, throughout, the criterion which lives in all experience, the spirit and essence of the whole. The whole, it is plain, is such as on the one hand to include change, and on the other hand not to break away from totality. Totality expresses itself in value, which is, as we have seen, the concentration and focus of reality in its essence as real, as a positive centre which is a solution of contradictions, and so far as at any point it asserts itself in experience, a satisfaction which rests on the tensions which are harmonized at that point. This has been to me, throughout, the direct and obvious teaching of life, when looked at as comprehensively as I knew how; and I will only add one word as to the difficulties, which also experience obviously presents. They consist, in principle, of extreme cases, whether for theory or practice; and against extreme cases, I have always strongly felt, it is a fair method to set cases no less extreme, in which parallel difficulties are solved. What man has done, man, I believe, may do, and of the evils which prima facie amaze and confound our ideas and our emotional nature, there are none, it seems to me, unparalleled by such as even we can see to be intrinsic and essential in the highest conceivable values. For this insight we need no more than, for instance, genuinely to realize what is implied in love. Or, what is ultimately the same thing: Why does the most exalted enjoyment as yet freely created by man take the form of poetical tragedy? What would be the basis of our life if all that enables us to care for these things were torn away?

"My philosophy," then, is the theoretical fabric to the construction of which (adopting, of course, almost wholly what I have learned from others) my experience, as above indicated,

has driven me. New ideas necessarily appear, or old ones reappear, as the whole reveals more of itself; but remembering that philosophy must above all things keep its head, and deal with all the sides of life, and not let itself be upset just by this or that, I find it hard to believe that, as the totality which is its own criterion, it will find the new in the main irreconcilable with the old.

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CRITICAL AND SPECULATIVE PHILOSOPHY

By C. D. BROAD

Born 1887. Dulwich and Trinity College, Cambridge. Lecturer in Philosophy and Fellow of Trinity College, Cambridge.

BIOGRAPHICAL

§ 1. I UNDERSTAND that it is the wish of the Editor of this collection of essays that each contributor should describe his own system of philosophy. Were I to interpret this demand literally I could not contribute anything at all, for two excellent reasons. In the first place, I have nothing worth calling a system of philosophy of my own, and there is no other philosopher of whom I should be willing to reckon myself a faithful follower. If this be a defect I see no likelihood of its ever being cured. Secondly, if I had a system of my own, I should doubt the propriety of "pushing" my crude philosophical wares in competition with the excellent products of older firms with well-earned reputations. The best I can do is to state in outline my own quite unoriginal views about the subject-matter of philosophy, and about the kind and degree of certainty which we may hope to reach in different branches of philosophical inquiry.

§ 2. A man's philosophy cannot be altogether separated from his history; for Mr. Bradley's saying, that "metaphysics is the finding of bad reasons for what we believe on instinct, but to find these reasons is no less an instinct," is as near the truth as any epigram can well be without sacrificing that brevity which is the soul of wit. On this ground, and on this alone, a few autobiographical details are necessary, and may escape the charge of impertinence. I shall therefore begin by mentioning some of the books which and the men who have specially influenced me, and by enumerating those hereditary and acquired tendencies which are likely to have biassed my philosophical views. I have always been about equally interested in philosophy and in the more abstract sciences; and, as a matter of history,

I approached philosophy from the side of natural science. I do not mean by this that I was first a pure scientist and then took up with philosophy. The latter subject interested me intensely even in my schooldays. Before I went up to Trinity I had read Mill's *Logic*, Kant's *Critique of Pure Reason*, and Schopenhauer's *Welt als Wille und Vorstellung*. I went to Cambridge as a convinced subjective idealist, who would have liked to believe that Schopenhauer had proved his case, but who felt in his bones that this was not so. It is true, however, that I studied natural science seriously long before I began to make an equally serious study of philosophy. The two subjects simply interchanged their relative importance for me as time went on.

When I first entered Trinity the college was full of philosophical discussion. Dr. Moore and Mr. Russell had both gone down; but the tradition of the former was still very strong, whilst the latter's *Principles of Mathematics*, published some four years earlier, was the basis for endless discussions among intelligent undergraduates. Probably this book, which I had read hastily in the School Library, but now studied carefully for the first time, has influenced me more than any one other. I learned from it not to *welcome* contradictions as proofs that such and such features in the apparent world are unreal. I learned to suspect that, when philosophers discovered contradictions in apparently fundamental categories, it was just possible that it might be the philosopher who was at fault and not the category. And it seemed to me that the contrast between the ways in which philosophers had dealt with the difficulties of infinity and continuity, and the way in which mathematicians like Cantor and Weierstrass had done so was most illuminating. Another writing which influenced me profoundly was Dr. Moore's *Refutation of Idealism*. This knocked the bottom out of my youthful subjective idealism, and taught me to avoid a trap into which numberless better men than I have fallen. Of course I do not think that this article does "refute idealism," even of the Berkeleian kind; but it does refute the commonest and most plausible argument for it, and forms of this argument do

appear in the writings of philosophers who would be much hurt to be called "subjective idealists."

At a later stage of my career Mr. Russell came back to Trinity, and I derived an immense stimulus from his lectures and from conversation with him. As we all know, Mr. Russell produces a different system of philosophy every few years, and Dr. Moore never produces one at all. "*Si Russell savait, si Moore pouvait*" seems the only adequate comment on the situation; but I owe more than I can tell to the speculative boldness of the one and the meticulous accuracy of the other.

In the meanwhile I devoured eagerly all Dr. McTaggart's books, and enjoyed the privilege of his lectures and his personal influence. I learned from him to look with suspicion on that "grateful and comforting" mixture of idealistic metaphysics with edifying social and ethical theory which used to emanate from the West of Scotland. His teaching and Mr. Bradley's writing strengthened in me a natural dislike for every kind of *Schwärmerei* and enthusiasm in philosophy. He little knows how nearly he made me an Hegelian, or perhaps I had better say a "McTaggartian." From this fate my native scepticism (to which I shall refer later) about all big systems based on abstract reasoning saved me at a time when I could not see precisely what was wrong in detail with the argument.

To Mr. W. E. Johnson I owe my interest in the problems of probability and induction, which have been somewhat neglected by mathematical logicians of the Frege-Russell school.

The last important external influence which moulded my philosophical views began to act when I left Cambridge and went to St. Andrews. Here I was constantly in the closest touch with Professors Stout and Taylor. It was a great advantage to me to discuss philosophical problems almost daily with men who were obviously the intellectual equals of my Cambridge teachers, and who yet belonged to very different philosophical schools from them and from each other. From Professor Stout I learned, among much else, to see the importance of psychology, a subject which I had formerly regarded with some contempt. It were difficult to mention any subject on which

I did not glean something from Professor Taylor's immense store of accurate and ever-ready knowledge; so I will content myself with saying that he led me to read St. Thomas Aquinas and St. Anselm, and to recognize the wonderful philosophic abilities of the mediæval theologians.

§ 3. I will end this account of my philosophical development by enumerating those innate and acquired tendencies which seem likely to have warped my views. (i) I should say that I am much more susceptible to high achievements in science than in art. I am somewhat obtuse to the influence of scenery, painting, music, and the highest kinds of pure literature. I admit in the abstract that Shelley was as great a genius as Newton or Leibniz and a greater poet than Pope. But I can understand and enjoy in detail what is great in Newton's scientific work and in Pope's verbal felicity, whilst I have to take the greatness of Shelley or Keats largely on trust. I could quite easily be taken in by an inferior performer on their lyre, but I think I could see through second-rate science or inferior epigrammatic poetry. (ii) Closely connected with this is the fact that I am almost wholly devoid of religious or mystical experience. This is combined with a great interest in such experiences and a belief that they are probably of extreme importance in any theoretical interpretation of the world. (iii) I also intensely dislike and profoundly distrust all strong group emotions. (I think that this may be an excessive reaction against an unacknowledged tendency to feel them rather strongly.) This connects with the last-mentioned defect in the following way. There seem to be two fundamentally different types of religious person, of whom the Quaker and the High Churchman are limiting cases. I do not share the emotions and experiences of either, though I admire and respect many men of both types. But I find the Quaker type far the more intelligible of the two. To me a corporate institution is always at best a necessary evil, like the string of a kite, which cannot be dispensed with, but which ought to be as thin and light as possible. Hence the attitude which the High Churchman takes towards his Church, and which many Hegelians take towards

the State, is one which I simply cannot understand at all. They seem not so much to be describing something with which I am not acquainted as to be misdescribing something with which I am all too well acquainted. As many of them are obviously at least as intelligent as I, the whole business perplexes me very much indeed. (iv) I am fundamentally sceptical, and I feel no confidence in any elaborately reasoned system of metaphysics. Even when I cannot put my finger on any definite flaw in it, there is a still small voice within me which whispers "Bosh!" A great deal of so-called scepticism is simply a particular kind of dogmatism which leads men to reject all alleged facts which do not come within the sphere of recognized science. Mine is certainly not of that type. I have always been interested in the phenomena dealt with by Psychical Research, and the attitude of orthodox scientists towards them has always seemed to me ridiculous. This view has been strengthened by subsequent intercourse with the skeletons which inductive logic conceals in its cupboards. Thus my scepticism makes me far less ready to reject the abnormal than are most educated men of our time. A man must know a great deal more about the secrets of nature than I do to reject any alleged fact without investigation, however wild it may seem. (v) I tend naturally to take a somewhat gloomy view of the world and its inhabitants; and I have a particular horror of all attempts to argue from what ought to be, or what we should like to be, to what is or will be. Perhaps this sometimes leads me into the opposite mistake of regarding certain types of theory as improbable simply because they seem cheerful. (vi) Lastly, I have an extreme dislike for vague, confused, and oracular writing; and I have very little patience with authors who express themselves in this style. I believe that what can be said at all can be said simply and clearly in any civilized language or in a suitable system of symbols, and that verbal obscurity is almost always a sign of mental confusion. I agree with Dr. Johnson's remark about Jacob Boehme: "If Jacob saw the unutterable, Jacob should not have attempted to utter it." I think that this may prejudice me against some

writers who really are struggling to express profound ideas in imperfect language.

It is obvious that some of the characteristics which I have mentioned are grave defects in a philosopher, and that all have their dangers. There are evidently certain very important aspects of human experience which I can only know imperfectly through the descriptions of others, and never through my own personal acquaintance. The necessity of forewarning the reader against probable causes of error in my views must be my excuse for the apparent egoism of the preceding pages. I do not imagine that my philosophical biography is of any *intrinsic* interest or importance : but it has a *relative* importance for anyone who troubles to read my philosophical writings.

CRITICAL AND SPECULATIVE PHILOSOPHY

§ 4. It seems to me that under the name of " Philosophy " two very different subjects are included. They are pursued by different methods, and can expect to reach quite different degrees of certainty. I am wont to call them *Critical* and *Speculative* Philosophy. I do not assert that either can be wholly separated from the other. The second quite certainly presupposes the first, and it is probable that in the first we tacitly assume some things that belong to the second. But they certainly can be separated to a considerable extent, and it will be best to begin by explaining and illustrating what I mean by each in turn.

§ 5. Critical Philosophy.—In ordinary life and in the special sciences we constantly make use of certain very general concepts, such as number, thing, quality, change, cause, etc. Now, although we constantly *use* them and apply them with fair consistency, it cannot be said that we have any very clear ideas as to their proper analysis or their precise relations. And it is not the business of any of the special sciences to clear up these obscurities. Chemistry, e.g., tells us a great deal about particular substances, such as gold and *aqua regia*, and about their qualities and relations ; but we should not go to a chemistry

book for a discussion on substance, quality, and relation. Chemistry simply assumes these general concepts as fully understood and concerns itself with particular instances of them.

Now it is certain that our ideas about such general concepts are highly confused, and this shows itself as soon as we try to apply them to cases which are a little out of the ordinary. We think we know what we mean by " place " and " person," for instance ; and we do no doubt agree in the main in applying and withholding these terms. But suppose we are asked : " In what place is the mirror image of a pin ? And is it in this place in the same sense in which the pin itself is in *its* place ? " Or suppose we are asked : " Was Sally Beauchamp a person ? " We find ourselves puzzled by such questions, and this puzzlement is certainly due in part to the fact that we are not clear as to what we mean by " being in a place " or " being a person." Similar difficulties could be raised about all the fundamental concepts which we constantly use. Thus there is both need and room for a science which shall try to analyse and define the concepts which are used in daily life and in the special sciences. There is need for it, because these concepts really are obscure, and because their obscurity really does lead to difficulties. And there is room for it, because, whilst all the special sciences *use* these concepts, none of them is *about* these concepts as such. I regard Critical Philosophy as the science which has this for its most fundamental task.

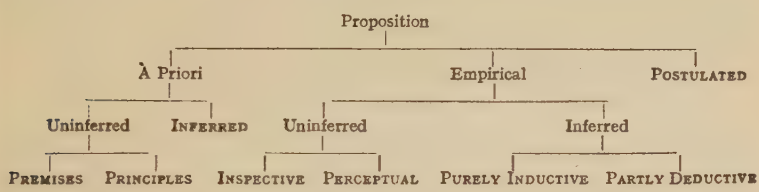
It seems to me that such a science is perfectly possible, and that it actually exists, and has made a good deal of progress. I will illustrate this with some examples. Since the time of Berkeley and Descartes philosophers have devoted much attention to the problem of the " Reality of the External World." I do not pretend that there is any agreed answer to the question among them, but their inquiries have been most valuable in clearing up the meanings of such terms as " matter," " sensible appearance," " sensation," " perception," " independence," etc. Any competent philosopher nowadays, whether he asserts or denies the independent existence of matter, is asserting or denying something far more subtle and far better analysed than

anything which Berkeley or Descartes would have understood by the same form of words. Again, we are not agreed on the right analysis of "cause"; but any view we may reach should be far subtler and clearer than that which could have been held before Hume wrote his classical criticism of this category. In making such statements I am, of course, referring to present-day philosophers who are really capable of appreciating and continuing the work of their predecessors. In any age there is plenty of philosophical writing which is far below the level of the best work of past ages. Moreover, there are fashions in philosophy, and even the best men of a certain period may ignore important results reached by the best men of a certain earlier period which happens for the time to be unpopular. Thus the philosophers of the *Aufklärung* neglected many important distinctions which the Scholastics had clearly recognized, and I think it probable that some of the *summi philosophi* of our time tend to neglect much fine gold which was mined by Kant and Hegel. Still, with these qualifications, it is pretty obvious that Critical Philosophy, as partly defined above, does make real and fairly steady progress.

§ 6. Now Critical Philosophy has another and closely connected task. We do not merely use unanalysed concepts in daily life and in science. We also assume uncritically a number of very fundamental propositions. In all our arguments we assume the truth of certain principles of reasoning. Again, we always assume that every change has a cause. And in induction we certainly assume something—it is hard to say what—about the fundamental "make-up" of the existent world. Now the second task of Critical Philosophy is to take these propositions which we uncritically assume in science and daily life and to subject them to criticism. In order to do this we must first clear up the concepts which the propositions are about. It is impossible to know what weight to attach to the proposition that "every change has a cause" until you have assigned definite meanings to the words "change" and "cause." It is often found that a man's certainty about such propositions is directly proportional to the vagueness of the terms concerned

in them. So the second part of Critical Philosophy is dependent on the first. No doubt it is also true that the first is dependent on the second. We clear up the meanings of terms by reflecting on the propositions in which they occur, just as we clear up the meanings of propositions by finding out the right analysis of their terms. I fancy that the two processes go on by alternate steps, very much as the development of thought and of language must have done in pre-historic times.

§ 7. When we have got a clear idea of the meanings of propositions which are commonly assumed, our next business as Critical Philosophers is to expose them to every objection that we can think of ourselves or find in the writings of others. As a result of such reflexion and criticism it seems to me that we can divide propositions roughly according to the following scheme.



By an *à priori premise* I mean some proposition such as "Colour cannot exist without extension." This expresses a connexion between two universals which is seen to be necessary by reflexion upon instances and which does not need to be deduced from anything else. By *à priori principles* I mean the principles according to which we pass from asserting one proposition to asserting others. This group therefore includes the principle of the syllogism, the fundamental axioms of probability, and so on. By *inferred à priori propositions* I mean those which can be deduced from *à priori* premises by means of *à priori* principles. The proposition that π is not a rational number is an example.

By an *inspective empirical proposition* I mean one which asserts of some particular existent with which the mind is acquainted at the time some property which the mind can notice by inspection to belong to it. Examples would be:

" My headache is of a throbbing character," " A certain one of the presentations of which I am now aware is red," and so on. *Perceptual propositions* are based on those particular existents about which we can make inspective judgments, but they make assertions which go beyond these existents and their properties. They are not *reached* by inference from inspective propositions ; but, if we were called upon to *defend* them, we should do so by a mixture of inductive and deductive inference from such propositions. Examples would be : " That is a red pillar-box," " A man is talking to me," and so on. An *inferred empirical proposition* is one that is derived from a number of perceptual propositions either directly by pure inductive generalization, or indirectly by deduction from one or more inductive generalizations of the first kind. Examples of the two would be : " All living grass is green " and " The benzene molecule consists of six CH groups arranged at the corners of a regular hexagon."

I have included a third great division, viz. *Postulates.* The contents of this group are extremely puzzling to me. There are certain important general propositions, such as " Every change has a cause," "All sensa are appearances of physical objects," etc., which I tentatively put into this group. They seem to me to have the following characteristics: (i) I do not find them self-evident. (ii) I do not know of any self-evident premises from which they could be deduced by any known logical principles. Hence I cannot group them as *à priori* propositions. (iii) If they are to be grouped as empirical propositions they would have to come under the head of inferred empirical propositions. And this seems impossible for most of them. All inductions make some assumption about the structure of nature, which may be called the " Uniformity of Nature," for want of a better name. It would evidently be circular to try to prove such a proposition inductively. Again, any particular perceptual judgment may be defended by argument if we grant the *general* principle that all sensa are appearances of physical objects. But I can see no possibility of inferring this principle either inductively or deductively from the existence and correlations of sensa. (iv) On the other hand, it is equally impossible to

refute these propositions by argument. And (v) in practice everyone assumes them, and it is difficult to see that we could possibly unify our experience or that we should have any motive for carrying our researches further if we did not assume them to be true. I take these five characteristics as the marks of a postulate.

§ 8. Now there is one suggestion that I want to make before leaving this subject. I do not think that we must *identify* necessary propositions with those which are self-evident or deducible by self-evident principles from self-evident premises. These properties seem to me to be *tests* (and the only available tests) for necessity. I would define an *à priori* proposition as one which is necessary and is recognized by us to be necessary. Hence *à priority* probably depends on two factors, viz.: (i) necessity, which is an intrinsic property of the proposition, and (ii) some special relation between the proposition and the mind which contemplates it. When this subsists the mind can *see* that the proposition is necessary, and so it is counted as *à priori*. Now there are some propositions which we can positively see to be necessary, e.g., the principle of the syllogism. There are many which we can positively see *not* to be necessary, e.g., that all grass is green or that a certain presentation of which I am now aware is red. But there are other propositions of which we cannot see either that they are or that they are not necessary, though they must of course be in fact one or the other. It is, e.g., a well-known fact that certain propositions in the theory of numbers which are now deduced *à priori* propositions were for many years accepted tentatively as the results of induction. It therefore seems to be possible that some at least of the postulates may be necessary propositions which higher or more favourably situated minds than ours would find self-evident or would be able to deduce from premises which they found self-evident. It is worth while to notice that there is a considerable analogy between the postulates and those *à priori* propositions which I have called "principles." The principles of deductive logic and of the theory of probability happen to be self-evident to us. But, if they had not been, we should certainly have had

to put them in the group of postulates ; for we evidently could not have made a step forward in unifying our experience without them. It does therefore seem possible that the analogy may be reversible, and that some of the postulates may really be necessary principles which only fail to be counted as *à priori* because we cannot see their necessity. Postulates may be called "hypothetically necessary"; i.e. they are necessary *for the purpose* of unifying our experience. *À priori* principles are hypothetically necessary, in this sense, and also *intrinsically* necessary, as is shown by their self-evidence. What I have been saying is that some at least of the postulates may also be intrinsically necessary, although we are not capable of seeing that this is so.

Suppose now that we take "necessary" and "contingent" to express intrinsic characteristics of propositions, and "certain" and "possible" to express subjective degrees of conviction in a rational but limited mind. We might then make the following statements. (i) *À priori* propositions are those which are certainly or almost certainly necessary. (ii) Empirical propositions are those which are certainly contingent. (iii) Postulates are those which are possibly necessary. Now, if we are certain of the necessity of a proposition, we are *ipso facto* certain of its truth. But to be certain of the contingency of a proposition implies nothing about our conviction of its truth. We may be certain that a proposition is contingent, and at the same time certain that it is true. I may be as certain that my headache is of a throbbing character as that $2 \times 2 = 4$, although the former is certainly contingent and the latter is certainly necessary.

§ 9. To sum up. (i) There is always a general possibility of error even about uninferred *à priori* propositions. It is admittedly possible to think that a proposition is necessary when it is not. This *general* difficulty is not a legitimate ground for doubting any *specific* proposition ; provided that we have honestly exposed it to all the objections that we can think of. But it is a ground for being always ready to re-open the question if fresh *specific* objections be brought to our notice. (ii) An

inferred *à priori* proposition is always less certain in proportion to the length and complexity of its proof. As Descartes pointed out, I have to trust my memory at the later stages for the conviction that the earlier steps were self-evident. Now, memory-propositions are empirical, and, for our purpose, must be classed with perceptual propositions. Thus the certainty of inferred *à priori* propositions is conditional; they are certain provided we can trust our memories, and that we have not deceived ourselves over any of the steps. (iii) Inspective propositions are practically certain provided they confine themselves to the positive non-relational characteristics of presentations or states of mind. The moment they go beyond this they are liable to error. Stumpf's argument shows that we can judge two sensa to be exactly alike when they are really different in intensity. Again, it would be perfectly possible to think that a sensum is *uniformly* red or *exactly* round when it is not. For these involve negative assertions, and more inspection will not guarantee them. Thus inspective propositions, though certain, tend to be very trivial. (iv) Perceptual propositions are still less certain. If I make the judgment: "This which I see is a pillar-box," I may be wrong in the following ways: (α) I may be basing a perceptual proposition on a mere image or on an hallucinatory sensum. (β) I may be misinterpreting a genuine sensum. The red pillar-like sensum may be due to a skilful painting on a flat canvas. (γ) The general assumption that all sensa are appearances of physical objects is only a postulate, and may be wrong. There may be no physical objects. (v) It is evident that inferred empirical propositions must have all the weaknesses of perceptual propositions together with others of their own. For their ultimate premises are perceptual propositions, and from these we reach inductive generalizations in accordance with the *à priori* principles of probability. But it is quite easy to show that these will not justify us in assigning any finite probability to inductive generalizations unless we also assume certain premises about the structure of nature. And, as we have seen, another postulate has to be made to justify the original perceptual propositions which the inductive

proposition professes to generalize. Of course this is quite compatible with the fact that *some* inductive propositions may be more certain than *some* perceptual propositions. It is more reasonable to believe strongly that I *shall* be ill if I swallow arsenic than to believe strongly that a conjuror has really pounded my watch in a mortar and restored it to me, although I seem to have seen him do so.

§ 10. It is worth while to remark that sometimes it is quite certain that propositions of *some* kind are being assumed, and yet it is by no means easy to say exactly what these propositions are. In such cases the first business of Critical Philosophy is to find these assumptions and to state them clearly. This is one of the main difficulties of the theory of induction. Nearly every one was agreed that something, which they called the "Uniformity of Nature," was presupposed in all inductions. But (*a*) no one stated clearly what they meant by this; and (*b*) most writers seemed to think that nothing further was needed except the ordinary principles of deductive logic. It has therefore been an important talk of Critical Philosophy to show (*a*) that inductive arguments can only be valid if they state their conclusions in terms of probability, and that they therefore use the principles of probability; and (*b*) that, if they do not *also* use some premise about nature, they will be unable to give any finite probability to their conclusions. The way is then clear for seeking the assumptions about nature which would suffice to give a reasonably high probability to the conclusions of generally accepted inductive arguments. It is easy to show that something more concrete than the Law of Causation is needed, and that the assumption of something like Natural Kinds at least is necessary. Finally, we are in a position to estimate the kind and degree of evidence which there is for such assumptions.

§ 11. It seems to me that we can lay down two useful general methods in Critical Philosophy. I will call them the *Principle of Exceptional Cases* and the *Principle of Pickwickian Senses*. I will now illustrate them with some examples. (i) If we want to clear up the meaning of some commonly used concept it is

enormously important to see how it applies to exceptional and abnormal cases. E.g., let us take the concept of "being in a place." This is commonly applied to things like pins and chairs, and it seems to be a simple two-term relation between a thing and a place. But now suppose that we ask: "Where is the mirror-image of a pin; and is it in its place in the same sense in which the pin itself is in *its* place?" It seems plausible to answer that the place where the image is is as far behind the mirror as the place where the pin is is in front of the mirror. At once two difficulties arise. (*a*) If you go to the place where the pin is said to be you can touch something correlated with the visual appearances which have guided you to this place. But, if you go to the place behind the mirror where the image is said to be, you may touch nothing or you may touch a brick wall. You will certainly not feel anything like a pin. (*b*) If you approach the place where the pin is said to be from *any* direction there will be a series of visual appearances which continues till you reach the place. But, if you approach the place where the image is said to be, you will find (α) that it is only from *certain* directions that any visual appearance resembling the pin is there, and (β) that from *all* directions of approach the series of visual appearances stops before you reach this place. Now in theory you could either take the sense in which the pin is in its place as fundamental, and try to explain the sense in which the image is in *its* place by making a number of supplementary hypotheses; or you could take the sense in which the image is in its place as fundamental, and regard the facts which are true of the pin and not of the image as due to the fulfilment of certain special conditions which *need* not be realized but which in fact generally are. The latter seems to be the only hopeful course to take. It leads us to two conclusions. (*a*) A perceptual object consists of several correlated components: one visual, one tactual, and so on. Generally the visual, tactual, and other components are all in the same place in important and definable (though different) senses. But they *may* be in different places when certain special simplifying conditions (homogeneity of the medium, etc.) are not ful-

filled. (*b*) " Being in a place " is not a simple two-term relation between a visual appearance and a place. It is really at least a three-term relation, viz., " being in place x from place y." Under special conditions, which happen to be often very nearly realized, there are similar visual appearances in a place from *all* places within a certain range. This is true of the pin. With a plain mirror we get a more general and less simple case. We have (α) similar visual appearances in a place from many, but not from all, *directions*. (β) There are no such appearances in this place from any place behind the mirror. (γ) There is no correlated tactual object at the place. The commoner, but more special, case is explained by the existence of a special set of simplifying conditions, which we refer to as the " homogeneity of the medium." This way of looking at the facts might be compared to regarding a circle as a specially simplified instance of the general conic section. Once you know the properties of the general conic you can deduce all the properties of the circle; but, if you insist on starting with the properties of the circle you will find a great deal to puzzle you in the properties of the general conic. Another example would be given by the study of multiple personality, telepathy, and other abnormal psychical phenomena. If we start with the view, which purely normal cases suggest, that every human body has one and only one self connected with it, and that this self is a completely unified continuous existent, we shall find the abnormal phenomena most difficult to deal with. But if we start from the other end, and regard the normal cases as due to special simplifying conditions which happen to be generally fulfilled, we may be more successful.

§ 12. (ii) *The Principle of Pickwickian Senses* was first developed by pure mathematicians in their attempts to define such things as irrational numbers. They saw that any entity which has the same formal properties as $\sqrt{2}$ and $\sqrt{3}$ are supposed to have can be taken to *be* $\sqrt{2}$ or $\sqrt{3}$, even though its internal structure be very different from that which people had commonly assigned to irrationals. Thus they define $\sqrt{2}$ and $\sqrt{3}$ as certain series of rationals, and show that such series have to each other

relations of the kind which irrationals are supposed by everyone to have to each other. The advantage of this definition is that it is quite certain that something exists which answers to it, whereas with other definitions of the same entities this cannot be shown to be so. Now of course most people do not think of irrationals, like $\sqrt{2}$ and $\sqrt{3}$, as *series* of ordinary numbers, but as a special *kind* of number. Hence, when we call certain series of rationals by the name of " irrational numbers," we may be said to be using the phrase in a " Pickwickian sense." (The name is due to Dr. Moore.) This principle has always been familiar in Theology. When theologians say that the Second Person of the Trinity is the son of the First Person, they are using the word " son " in a highly Pickwickian sense. Anyone who will read, e.g., St. Thomas's brilliant discussion of this subject in the *Summa contra Gentiles* will see how careful St. Thomas is to point out in his own language that phrases like " sonship " and " begetting " cannot be interpreted literally here, and will further see what an elaborate and metaphorical interpretation St. Thomas puts upon such phrases. Now Whitehead and Russell have explicitly carried this principle over into philosophy, where I am quite sure that it is destined to play a most important part. Whitehead has used it to define points, moments, etc., and has succeeded in giving Pickwickian senses to these terms, in which it is certain (α) that they exist ; (β) that they have to each other the sort of relations which we expect points and moments to have ; and (γ) that there is an intelligible and useful, though Pickwickian, sense in which we can say that volumes are " composed of " points, and durations of moments. This seems to me to be one of the most important steps in the philosophy of applied mathematics.

Russell has used much the same method in dealing with the still harder problem of the nature of matter, and the relation of a bit of matter to its various sensible appearances. I am not prepared to accept Russell's theory as it stands, because I think it still fails to do justice to the extreme complexity of the problem. But I think we can safely say that *any* tenable theory of matter can only admit its existence if it be defined

in a highly Pickwickian sense. Even on the ordinary scientific view the statement that pillar-boxes are red must be interpreted in an extremely Pickwickian way before it can be accepted; and more critical reflexion shows that still more radical modifications are needed in the common-sense view of the nature of matter. Thus the problem of matter and our perception of it seems to come to this:—"To define a Pickwickian sense of 'matter' in which (*a*) pieces of 'matter' shall have to each other the kind of relations which physics requires them to have; (*b*) the variability and privacy of its sensible appearances shall be compatible with its relative constancy and its neutrality as between all observers; (*c*) justice shall be done to the apparent dependence of its appearances on the physiological condition of the observer and the variations of the medium; and (*d*) the minimum amount of purely hypothetical entities shall be postulated."

It is most important to understand that questions like: "Does matter exist?" or "Is the self real?" cannot be answered with a simple Yes or No. Unquestionably there are facts in the world to which the names "matter" and "self" apply; and in that sense they are names of something real. But it is vitally important to distinguish between *facts* and the proper *analysis* or *description* of facts. The words "matter" and "self," as commonly used, do suggest certain theories about the facts to which they are applied. These theories are never clearly recognized or explicitly stated by common-sense; and, on critical analysis, they are often found to consist of a number of propositions of very different degrees of importance and certainty. E.g., I think there is very little doubt that the word "self," as commonly used, implies something like the Pure Ego theory of the structure of those unities which we call "selves." Hence anyone who rejects the Pure Ego theory is, in one sense, "denying the reality of the self." But, if he offers an alternative analysis, which does equal justice to the peculiar unity which we find in the things called "selves," he is, in another sense, "accepting the reality of the self." Whenever one particular way of analysing a certain concept has been

almost universally, though tacitly, assumed, a man who rejects *this analysis* will seem to others (and often to himself) to be rejecting the *concept* itself. Thus James raises the question: "Does Consciousness Exist?", and suggests a negative answer. But really neither James nor anyone else in his senses doubts the existence of certain facts to which we apply the name "consciousness." The whole question is: "What is the right analysis of these facts?" Do they involve an unique kind of *stuff*, which does not occur in non-conscious facts; or is their peculiarity only one of *structure*?" To deny the first alternative is not really to deny the *existence* of consciousness; it is merely to deny an almost universally held *theory about* consciousness. Philosophy seems to me to be full of unprofitable discussions which depend on a failure to recognize this kind of ambiguity; and the Principle of Pickwickian Senses has the advantage that it forces the distinction on our notice.

§ 13. It remains to say something about the relations of other sciences to Critical Philosophy. It is clear that logic and ethics are simply branches of Critical Philosophy. Logic is its most general and fundamental part, being the science which classifies and analyses proportional forms and discusses their formal relations to each other. Now all sciences *consist* of propositions which are of various forms and stand in such relations that some are supposed to "follow from" others. But no other science is *about* propositional forms or their formal relations. Thus logic deals with the most fundamental of all concepts, and with those *à priori* principles which form the connective tissue of all knowledge. Ethics is that part of Critical Philosophy which tries to analyse the concepts and appraise the assumptions which are involved in our judgments of moral value.

The distinction between mathematics, physics, or chemistry, and what is called "the philosophy of" these sciences is, I think, pretty clear. But, as we pass to the more concrete and less advanced sciences, the distinction becomes in practice less definite. Discussions about mechanism and vitalism, e.g., are in part at least questions of Critical Philosophy, and yet

they appear in books on biology. I think that psyhcology is wrongly counted as a part of philosophy ; it is strictly a natural science based on observation and induction. But any standard work on psychology is full of discussions which really belong to Critical Philosophy. Attempts to analyse and define sensation, perception, selfhood, etc., belong to Critical Philosophy ; but it is quite impossible for the psychologist to avoid them, for these concepts are not, like those of physics, clear enough to be used for ordinary scientific purposes without risk of error. It is generally a bad thing when a science and the philosophy of that science are mixed up with each other, because two very different kinds of problems must then be dealt with by the same man, and hardly anyone combines the special aptitude and knowledge needed for both. We are all familiar with the nonsense which eminent philosophers have talked about scientific questions ; it is only equalled by the nonsense which eminent scientists continually talk about philosophical questions.

§ 14. Speculative Philosophy.—It is quite evident that what I have been describing under the name of *Critical Philosophy* does not include all that is understood by philosophy. It is certainly held to be the function of a philosopher to discuss the nature of Reality as a whole, and to consider the position and prospects of men in it. In a sense Critical Philosophy presupposes a certain view on this question. It assumes that our minds are so far in accord with the rest of Reality that by using them carefully and critically we approach nearer to the truth. But it is still clearer that Speculative Philosophy presupposes a considerable amount of Critical Philosophy. Its business is to take over all aspects of human experience, to reflect upon them, and to try to think out a view of Reality as a whole which shall do justice to all of them. Now it is perfectly useless to take over the scientific, social, ethical, æsthetic, and religious experiences of mankind in their crude, unanalysed form. We do not know what they mean or what weight to attach to various parts of the whole mass till we have submitted them to a critical analytic investigation. Two results follow at once from this consideration. (i) We cannot admit the

claim of any system of Speculative Philosophy to be the final truth. The best of them will be guesses at truth, and will be subject to modification as more facts are known, and as known facts become more and more fully analysed and criticized. (ii) We must always admit the possibility that Critical Philosophy has not yet been carried far enough to make any attempt at Speculative Philosophy profitable.

§ 15. There is another general point which it seems important to notice. I think that, in different forms, it plays a vital part in such different philosophies as those of Mr. Bradley and M. Bergson, and in the thought of most great theologians, whether Christian or non-Christian. This is the question how far the discursive form of cognition by means of general concepts can ever be completely adequate to the concrete Reality which it seeks to describe. Thought must always be "about" its objects; to speak metaphorically, it is a transcription of the whole of Reality into a medium which is itself one aspect of Reality. We are bound to think of Reality as a complex of terms having various qualities and standing in various relations; because, if we do not think of it on these lines, we cannot think of it at all. With Mr. Bradley's attempt to show that this scheme involves *internal* contradictions I do not agree. But I do see clearly that we have only to compare a tune, as heard, or an emotion, as felt, with any conceptual description which we can give of them, to recognize how inadequate every conceptual description of Reality must be to Reality itself. When we can *both* be acquainted with something as a whole *and* can analyse and describe it conceptually, this difficulty is at its minimum. But we cannot be acquainted with Reality as a whole, as we can with a tune or an emotion, and therefore the difficulty is at a maximum in Speculative Philosophy. This limitation of the whole conceptual scheme is one which we must simply recognize once and for all and then ignore. We cannot avoid it in detail, and we cannot understand in outline any other kind of cognition. Since it is perfectly general, it applies equally to *every* system of Speculative Philosophy, and therefore gives us no ground for preferring one to another.

§ 16. It has been held by many philosophers, e.g., Spinoza and Hegel in the past and Dr. McTaggart at present, that important results about the structure of Reality as a whole can be reached by deductive arguments from self-evident premises. The best general account of such a view will be found in Dr. McTaggart's *Nature of Existence.* I do not think that this view can be refuted; it *is* theoretically possible, so far as I can see. But I am completely sceptical about its practicability. I feel pretty certain that all known attempts to elaborate a system of Speculative Philosophy on these lines either contain logical fallacies, or introduce premises which are ambiguous and only become self-evident when so interpreted as to be trivial. And I have not the slightest expectation that future essays in this direction will be any more successful.

§ 17. It seems to me that the main value of Speculative Philosophy lies, not in its conclusions, but in the collateral effects which it has, or ought to have, on the persons who pursue it. The speculative philosopher is forced to look at the world synoptically, and anyone who does not do this at some time in his life is bound to hold a very narrow and inadequate idea of Reality. This is a danger to which the natural scientist is peculiarly liable. The extraordinary success of physics and chemistry within their own sphere tempts men to think that the world is simply a physico-chemical system. These sciences, quite rightly for their own purposes, ignore the existence of minds; and scientists are liable to forget that somehow minds have grown up in a world of matter, and that it is by means of their activities that matter and its laws have become known. If a man referred to his brother or his cat as "an ingenious mechanism" we should know that he was either a fool or a physiologist. No one in practice treats himself or his fellow-men or his pet animals as machines, but scientists who have never made a study of Speculative Philosophy seem often to think it their duty to hold in theory what no one outside a lunatic asylum would accept in practice. If we remember that physics and chemistry are simply constructed to unify the correlations which we find among a selection of the sensa of

three or four senses, the idea that these sciences give a complete account of the structure of all Reality becomes ludicrous. Thus our inability to explain the facts of life and mind in purely physico-chemical terms is not a paradox to be explained away, but is what might reasonably have been expected from the outset.

On the other hand, the man who starts from the side of mind is equally liable to fail to do justice to the facts. The properties with which physics and chemistry deal *are* very pervasive, and we *do* know them more accurately and thoroughly than we know anything else. And minds *are* very closely bound up with certain bits of matter, viz., our brains and nervous systems, and they *do* seem to have gradually developed in a world which once contained nothing but matter. The characteristic fault of Idealism is to be unable to see the trees for the wood, and the characteristic fault of Realism is to be unable to see the wood for the trees. The great merit of Idealism is that it really has tried to do justice to the social, ethical, æsthetic, and religious facts of the world. The great merit of Realism is that it really has tried to face in a patient and detailed way the problem of matter and of our perception of it. But neither of these activities is a substitute for the other; and a genuine Speculative Philosophy must combine the detailed study of the lower categories with the due recognition of the higher categories, and must try to reconcile the pervasiveness of the former with the apparently growing importance of the latter.

§ 18. There is one thing which Speculative Philosophy must take into most serious consideration, and that is the religious and mystical experiences of mankind. These form a vast mass of facts which obviously deserve at least as careful attention as the sensations of mankind. They are of course less uniform than our sensations; many people, of whom I am one, are practically without these experiences. But probably most people have them to some extent, and there is a considerable amount of agreement between those people of all nations and ages, who have them to a marked degree. Of course the theoretical interpretations which have been put upon them are

very varied, and it is obvious that they depend largely on the traditions of the time, place, and society in which the experient lives. I have compared the experiences themselves with sensations; we might compare the common features in the interpretations which have been put upon them with our ordinary common-sense beliefs about matter; and elaborate systems of theology might be compared with big scientific theories, like the wave theory of light. Obviously there remains a further step to be taken, comparable with the philosophic criticism and interpretation of scientific theories about matter. It seems reasonable to suppose at the outset that the whole mass of mystical and religious experience brings us into contact with an aspect of Reality which is not revealed in ordinary sense-perception, and that any system of Speculative Philosophy which ignores it will be extremely one-sided. In fact it cannot safely be ignored. If we count all such experiences as purely delusive, we must explain how such a widespread and comparatively coherent mass of illusion arose. And, if we find it impossible to take this view, we must try to understand and criticize these experiences; to sift away those factors in them which are of merely local and temporary interest; and to see what the residuum has to tell us about the probable nature of Reality. The great practical difficulty here is that those who have the experiences most vividly are seldom well fitted for the task of philosophical criticism and construction; whilst those who are fitted for the latter task are not often mystics or persons of religious genius. It is alleged, and it may well be true, that the capacity for such experiences can be cultivated by a suitable mode of life and a suitable system of training and meditation. In so far as this can be done without detriment to the critical faculties it deserves the serious attention of philosophers; for theories which are built on experiences known only by description are always unsatisfactory.

PRINCIPAL PUBLICATIONS

Perception, Physics, and Reality, 1913.
Scientific Thought, 1923.

IDEALISM AS A PRINCIPLE IN SCIENCE AND PHILOSOPHY

By H. WILDON CARR

Born 1857. King's College, London; Professor of Philosophy, University of London.

BIOGRAPHICAL

My interest in philosophy is not due to any professional incentive and is not the result of any definite choice in connexion with vocation or inclination. My father, when I was five years old (I am the eldest of a large family), gave up his membership of the Stock Exchange, where he was engaged in a moderately remunerative business, in order to become the minister of a chapel of the Baptist denomination. He was well educated for his position. He had been an ordinary schoolboy at the Merchant Taylors' School, and when he left school to become a clerk in an office, he had spent his leisure in attending such evening courses as were then available and more especially in the mutual improvement societies which were encouraged by the religious denominations. He felt he had a call to the ministry and obeyed it. He was not unsuccessful as a preacher, but he found his family increasing, and ways and means becoming urgent. When I was eleven years old, he retired from his pastorate and returned to London to his former business. From that time and to the end of his life he was closely associated with his friend C. H. Spurgeon, the famous preacher. I learned from my father to feel the strong attraction which Calvinism has for a mind religiously inclined and logically disciplined. I think in this my experience is singular, for I find that most of those whom I know who have been brought up under Calvinist influence have strongly reacted against it. My father had a large library consisting almost entirely of the works of Puritan theologians and it was my delight. Before I was sixteen I had experienced conversion along much the same lines as are described by St. Augustine in the "Confessions," and I was duly baptized and received into the congregation, or rather, as we were taught to say, into the Church. Shortly before, I had left the Stationers' Company's School, then housed in Bolt Court, Fleet Street, Dr. Johnson's locality. I had reached the position of head boy, and had obtained a scholarship. Our circumstances, however, made the idea of proceeding to the University quite impossible, and I became a clerk in the City, at first in an accountant's office, and then with a Stock Exchange firm. As soon as I was settled in my business occupation I

joined the evening classes department of King's College, matriculating as a student and proud of the privilege of wearing, when my work in the City was done, the college cap and gown. I continued the study of Latin, Greek and German, but my chief interest was science. It was, however, to the Rev. E. P. Scrymgour, then lecturer on English Literature, that I owed my first acquaintance with philosophy proper. I recollect the kind of dismay and awe with which I saw the vista opened of that new interest, the great historical development of philosophical speculation. When my course was completed and I received the Associateship of King's College, I was awarded the Cunningham prize, given to the Associate of the year with the highest marks for his whole period. I was allowed by the donor to choose my prize and I selected Professor Fraser's edition of Berkeley. I read it through. It was my first real introduction to philosophy.

I continued to study in the evening classes at King's College, and my friendship with the lecturer in English Literature developed into a close personal one. He introduced me to the Aristotelian Society, and as this Society has been the centre of my philosophical interest and of my philosophical development I must explain how it was founded and how I came into it. It was not, in its first intention, a learned Society nor had its founders any ambition to make it one. In the spring of 1880 a group of eight young men had held a preliminary meeting in the chemical laboratory of Dr. Alfred Senier in Bloomsbury Square. They were not philosophers nor even students of philosophy, but men of various occupations who had conceived the idea of forming a society for the systematic study of philosophy by reading and discussion. The Society was in its second year when I joined it and had entered on a course of serious and earnest study under the general direction of the President, Mr. Shadworth H. Hodgson. We met fortnightly in a small room in John Street, Adelphi. We had no original papers, but took it in turns to open a discussion on some previously-arranged philosopher or philosophical work. After a few years we became known, recognized authors joined us, and gradually our meetings came to be the occasions for original communications. In 1884 I was elected a Vice-president and in 1886 I was appointed Honorary Secretary. The Aristotelian Society has therefore attached me throughout my life to philosophy as my central interest.

In 1907 I was fifty years old, I had been successful in my business on the Stock Exchange, and already for a few years I had been withdrawing from active work and devoting my time to the work of the Stock Exchange Committee on which I had the

honour of serving. I was well read in philosophy—my favourite philosophers were Plato and Hume—but beyond general and continuous interest in philosophical theories, I had no direct intention of devoting the remainder of my life to the profession of philosophy. There occurred to me at this time, however, an experience which had an effect on my future of which at the time I had no suspicion. It was almost accidental. I was walking in Paris and in passing a book-shop was attracted by Bergson's *Evolution Créatrice*. I had heard of Bergson; I had seen his earlier books in the library of a friend and been told of their striking originality, but as yet I had not read one of them. I bought the book and read it in my hotel, and it produced the experience of a new conversion. The whole philosophical problem was transformed, irradiated with light. I found myself possessed with a new enthusiasm. I was not, of course, the only one to feel that Bergson had given a new direction to philosophy. In fact I was rather late in my discovery. Bergson had already an enormous reputation in France, and William James, in his own brilliant way, was making him known in America and also in lectures at Oxford. An article which I published in the *Hibbert Journal* chanced to attract Bergson's notice, and led him to write and ask me if I would look over the final proof sheets of the English translation of *Evolution Créatrice*, which was then already printed in the paged form for publication. The task proved to be a long and difficult one. Sheet by sheet was carefully revised, questions of meaning arose, often involving long explanatory letters between us, and I fear the expense of production was largely increased, for the revision involved practically the re-setting. It was in this way that I saw opening before me the possibility of devoting the remainder of my life to original work in philosophy, and I retired from business and gave up my membership of the Stock Exchange. Shortly afterwards, I accepted the invitation of the publishers of the *People's Books* to write the small volume on Bergson. Following this I wrote for the same series the volume on *The Problem of Truth*. My friend Sidney Webb also at this time asked me to give a course of lectures on Bergson's Philosophy at the School of Economics. I accepted, although lecturing was an entirely new experience to me, but I soon discovered that whatever benefits lecturing might confer on the audience it had a real and substantial value for the lecturer in giving shape to his thoughts and affording him a practical test of the workability of his ideas. It was then I wrote *The Philosophy of Change*. The war brought me the opportunity, with its strong inducement to offer service in the national emergency, of under-

taking teaching work. Dr. William Brown, the Head of the Department of Psychology at King's College, had volunteered and been accepted for service in the Army Medical Corps and was anxious to find a substitute in order to enable him to go at once to the front. He pressed me to take over his classes, and in this way my teaching work in King's College began. In 1918 I was appointed by the University of London Professor of Philosophy in recognition of work for King's College which it has been my greatest pleasure and privilege to be able to offer, and to have had accepted, as honorary.

My own philosophy has taken form therefore in my later years. Besides the influence of Bergson, two other contemporary movements, one purely philosophical, the other primarily scientific, have contributed to determine its direction and development. The first is the new idealism of the Italians, Benedetto Croce and Giovanni Gentile, the second is the principle of relativity formulated by Einstein. My first introduction to Croce's philosophy was at the International Congress of Philosophy at Heidelberg in 1908, and my first acquaintance with the new revolution in mathematical physics was Langevin's paper *L'évolution d'espace et du temps* at the Congress at Bologna in 1911. My study of Croce led me to write *The Philosophy of Benedetto Croce* and later to translate Gentile's *Theory of Mind as Pure Act*. My book on *The General Principle of Relativity* was an attempt to show how the inherent difficulties in the ordinary concepts of the framework of nature had led to the new formulation and that the principle, though outwardly practical and experimental, is in its basis philosophical. Lastly, in my *Theory of Monads* I have made my own attempt at a philosophy of life and knowledge. I do not claim for it systematic completeness and finality, for in my view of thought and existence such a claim would condemn it *a priori*. The ideal of philosophy, as I aspire to it, is to find the right way of asking questions, not the final way of answering them. What appears to me, however, to mark a distinct achievement in the philosophy of the present time and to be a higher level from which the prospect opens of a great stride forward in constructive theory, is the convergence on a common standpoint of the two independent lines of the search for truth—experimental science, with its bias for the positive and real; speculative philosophy, with its bias for the transcendent and ideal.

IDEALISM AS A PRINCIPLE IN SCIENCE AND PHILOSOPHY

The old legend declared that God created man in His own image. The new principle of relativity regards the science of the physical world as the systematization of experience by individual observers from individual standpoints. The old philosophy declared that man is the measure of all things. The new principle of relativity declares that anything to be an object of physical science must be not merely measurable, but itself a measurement, and a measurement is only definable in terms of the measuring. The truth which underlies the philosophical and the scientific expressions is one and identical, but philosophy and science in reaching it have followed different routes, divergent alike in direction and in aim. There is a sense in which philosophy is always a reflexion of science, and yet it has a different rhythm and is seldom found pulsating in unison. It is only when some new scientific discovery revolutionizes our mode of thinking that we are suddenly brought back to first principles, physics is found to depend on metaphysics, and philosophy and science are joined together. Thus the Copernican hypothesis was the fulcrum and starting-point of the scientific and philosophical development of the seventeenth century; and the electro-magnetic theories of the nineteenth century, with their striking confirmation by observation and experiment in the twentieth century, are compelling us in philosophy to new reflexion on the nature of the reality of the physical universe. We are called upon to rethink the old problems in terms of the new science.

The new idealism,—by which I mean the idealism which is

not the revival or advocacy of an old theory, but the actual application of a philosophical principle to a present scientific problem,—is the interpretation of this new way of thinking the physical reality of the universe. It claims to be able to express the nature of the physical object without derogating in any way from the positivity of physical science. By the positivity of science I mean the absoluteness of science within its own domain, however relative the postulates on which it ultimately depends. In declaring all reality to be ideality, idealism does not therefore imply that objectivity is a subjective illusion, or that the framework and content of the universe is such stuff as dreams are made of; on the contrary, it affirms that the real is the ideal because only the ideal is concrete, and every attempt to set up the object as reality in complete independence of the subject of experience and of the conditions of experiencing is in vain. Success could only be the hypostasization of an abstraction. Abstractions are not unreal in the absolute sense, but it is in their claim to independent reality that the antinomies of ordinary thought arise.

The most important factor in the philosophical situation of the present time is the new scientific concept of the physical object. The problem of physical reality is being presented to us by science in an entirely new form, and one which does not raise the peculiar difficulty in regard to theory of knowledge which during three hundred years of continuous philosophical speculation we have not succeeded in dispelling. When Descartes distinguished two substances,—a thinking substance, receptive of ideas, and an extended substance, receptive of movements,—he gave to science the concept of a mechanistic universe, which has proved of incalculable service and fruitfulness, but in doing so he bequeathed to philosophy an insoluble problem concerning the origin and validity of ideas. In the eighteenth century, in the idealism of Berkeley and the scepticism of Hum, this problem gave rise to the dilemma of idealism and realism, and this dilemma still confronts us in the philosophical controversies of the present day. Science, a practical interest, impatient of dialectical disquisitions, unimpressed by the necessity of

securing its logical foundations, satisfied if it can possess a working hypothesis, has consistently and resolutely refused to be concerned with it. Newton had satisfied scientific inquirers that simple observation, and experiment based on observation, are sufficient to establish the universality of a law of gravitation, and he had claimed to dispense with hypotheses and to eschew metaphysics. Science seemed justified therefore in assuming, on the ground of self-evidence, the Newtonian conception of an absolute framework of physical reality, viz., a Euclidean space and an evenly-flowing time within which velocities might vary from zero to infinity. On this foundation science was successful in establishing its claim to be positive.

The protest of philosophy was raised even in Newton's own time, and it was not confined to negative criticism. Leibniz, for the first time in the history of philosophy, propounded a theory of the objectivity of the universe without resorting to the notion of a formal and material external existence, in the theory of the monads. So far as philosophy is concerned, Leibniz proved that the atoms of the material world are not bits of extension or occupants of a definite portion of an absolute void. The monads, or simple substances, which are the true atoms of nature, are active forces, centres of self-expressing activity, self-enclosed, with no external reality impressing them from without or mirrored by them within. Each monad includes and governs by its own law the whole of its presentations. The common universe is not a picture presented to all the monads, but the expression of the functional correspondence of the monads in their internal activity. Each monad is a completely enclosed world, but the different worlds express a common universe and a common truth because they correspond functionally in their inner relations. The activity of the monad consisted, he said, in perception and in appetition, and the universe of the monads was a harmony of internal forces, not an aggregation or addition or juxtaposition of mutually exclusive components.

Leibniz's argument was not purely speculative and metaphysical; he appealed to observation and experiment. If all

spaces and all times are parts of one universal space and of one universal time, then the increased power of discernment which the microscope puts at our disposal should tend to reveal more and more definitely the absolute divisions of the material continuum; but this is not what we find. The microscope reveals new worlds, new realms of activity, new view-points, each complete and each adapted to an individual activity, but also each providing its own dimensions for its own active subjects. These worlds are within our world, and yet not of it. The space and time of these worlds are identical with our space and time, and yet not components of it. By no means of summation or mathematical relation can these manifold spaces and times be compounded into a homogeneous space-time, one and universal.

The objectivity of the physical universe is then entirely constituted of the expression by active subjects of experience of their internal mode of activity, and the universality and community of the universe is a function of the internal nature of the monads. A century later this doctrine found expression in the Kantian philosophy in the well-known maxim that it is the mind which gives laws to nature. Kant did indeed reject the monadic theory of Leibniz as inconsistent with the theory that knowledge is only of phenomena,—for if there are monads we know things-in-themselves,—nevertheless Kant's theory of the mind's *a priori* activity is essentially Leibnizian. The profound significance of Leibniz's doctrine, however, as offering a sound basis for the construction of physical science, was completely lost sight of in consequence of the fantastic appearance the monadic system assumed when a *deus ex machina* had to be introduced to account for a pre-established harmony.

In physical science to-day the telescope and the spectroscope are disproving the working hypotheses and the mental assumptions which have been accepted hitherto in physics, and which have seemed not only necessary but conditioned by the laws of thought itself, as completely as the microscope seemed to Leibniz to disprove the old Democritean theory in its modern Newtonian form. The telescope and spectroscope introduce

us in fact to new systems of relative movement to which our standards of space and time measurements are simply non-adjustable. The clock to which we on earth are attached, that is, the earth itself, which by its rotation and revolution enables us to measure even, equal, lapses of time—the rigid foot-rule, which enables us to determine equal spatial intervals in any direction, carry no fixed and determinable value when we transfer them to other systems, because they have no relation to an absolute independent system comprehending all systems and apprehensible by all observers of natural events. Science by the purely scientific method of observation and experiment, without any admixture of speculative metaphysics, and without any appeal to *a priori* arguments, has discovered that it cannot formulate the laws of nature by simple reference to space and time, for these are not realities which can be measured by standards of universal validity. It is as impossible to correlate the space and time of relatively moving systems of reference with the system of a hypothetical immobile ether as it is to correlate the worlds of microbial activity revealed by the microscope with the world of our own activity. Science has been driven by the necessity inherent in its own character of positivity to find another basis for the objectivity of nature. It has formulated the principle of relativity.

This new principle is that the objectivity of nature and the uniformity of its laws depend on invariant relations transferred from one frame of reference to another, and not on any identity of the terms, formal or material, which enter into the relations. The continuity of the physical universe, therefore, is not dependent on the homogeneity and infinite divisibility of space and time, nor on the mobility of matter, nor on the immobility of ether, but on the functional expression of internal active forces. The phenomena of nature present themselves as external events, and these are co-ordinated by each observer taking the frame of reference to which he is attached, as a system at rest. The standard or norm must therefore be found ultimately in the subject of experience whose activity requires the co-ordination of his world, and not in the world which he

co-ordinates. The principle of relativity is of necessity pivoted on recognition of the activity of the observer attached to his frame of reference.

In declaring this principle to be idealism in science, it is clear that I am imparting a new meaning to the term idealism at the same time that I am implying a new interpretation of scientific truth. Idealism does not indicate an elusive, shadowy, dream-like, vagueness in scientific truth, an absence of substantiality and mathematical precision ; on the contrary, it indicates the way in which alone the abstractness of scientific truth can be overcome and the need for concreteness and integrity satisfied. We detract from science nothing of its positive character, we leave it in full possession of the object of knowledge, but we free that object from an abstract objectivity. We declare that the object is only truly known when the conditions of knowing enter into and become an intimate part of the concept of the object known. Knowledge is not an external relation. There are not pure objects on the one hand and indifferent subjects on the other. Mind in abstraction from nature, nature in abstraction from mind, are unsubstantial shadows.

It is not in mathematics and physics alone that science has been led to adopt a principle which is essentially that of philosophical idealism. Equally significant is the development of biology and of the still more recent science of psychology. Until the middle of last century biology was only a group of more or less scientific classifications of the known forms of vegetable and animal life, with no claim to the precision of the recognized sciences of mathematics, mechanics, and, to a certain extent also, chemistry. The significant facts in regard to the rise and development of the science of biology are : the perfect confidence with which in the beginning of the science a mechanistic interpretation was attempted, not only of vital phenomena in their actual manifestation, but also of their historical continuity in the evolution of species ; the initial success of the method ; and its ultimate breakdown and failure. I do not claim for the newer theory of creative evolution that it has as yet displaced altogether the older theory of natural

selection, and, indeed, biologists are as far from unanimity in accepting the interpretation of life as an original impulse rather than an acquired endowment, as philosophers are still far from accepting the theory that intellect is itself a product of evolution, but at least it seems to me that the whole of the early attempts to interpret function as a casual emergence from accidental structure and to explain life as an acquired function of an inert matter are now wholly discredited. In claiming that the theory of creative evolution is an idealistic principle applied to positive science I have regard simply to the fact that it rejects, as essentially irrational and literally inconceivable, the presupposition that it is possible to reconstruct, on the mechanistic analogy, the continuity of enduring life and progressive evolution, by analysing the structure of the organic forms in which life is immobilized. In physiology, and in biology generally, the problem of science is the problem of the integration of function and not that of the dissociation of structure. Most noticeably is this the case in neurology, where the clue to the whole secret of nervous mechanism is seen to lie in the possibility of discovering and understanding the nature and working of the integrating function of the brain.

The necessity which compels this inversion of the ordinary analytic method in the science of life, or indeed of anything the essential nature of which is conceived dynamically as activity, was pointed out, also for the first time in the history of philosophy, with absolute clearness by Leibniz. He proved from the concept of individual substance or active subject that piecemeal, *ad hoc*, purely contingent and momentary creation is impossible, inasmuch as the spatial manifestation at any moment is the expression of a nature whose continuity lies behind it in the past, a continuity which consists not in succession, but in development. This was the ground of the argument that the universe of the monads could only come into existence altogether by an act of creation, or perish altogether by an act of annihilation.

Psychology, the most recent claimant to a place in the circle of the natural sciences, also illustrates this idealistic principle

in one very definite particular, namely, in the significant failure of the alternatives of parallelism and interaction to explain the relation of mind and body. One effect of Descartes's distinction of two substances, each possessing an exclusive attribute, was that the problem of mind and body had to be formulated in terms of their relation. The first attempts of philosophy were directed to the discovery of a metaphysical solution, but in the nineteenth century, when the scientific problems of life and evolution became the central intellectual interest, the need to bring the phenomena of mind or consciousness within the scheme of a scientific monism became paramount. The older metaphysical theories were rediscovered and introduced, first as working hypotheses, and then as themselves scientifically verifiable and indicative of the nature of the phenomena. The difficulty seemed at last to be overcome in the epiphenomenal theory of mind. The success of this theory proved, however, to be brief. It was rendered meaningless by the scientific discoveries of the new psychology and the clear evidence which was forthcoming that conscious mental processes are continuous with, and the expression of, unconscious mental process. It became necessary even in the interest of science to form some concept of the agency of mind. For the whole point of the epiphenomenal theory had been to deny any efficiency to mind, to emphasize its inefficiency, and to reduce its phenomenology to a simple aspect of material agency. The new idealism offers a rational concept of the mind-body relation, and one which is in perfect accord with the new concepts of physical science. It declares mind and body to be in a relation of solidarity. Just as in the scientific concept of the four-dimensional space-time continuum, as Minkowski and Einstein present it, space and time are reduced to shadows, and only a kind of union of the two is real, so with the mind-body relation, only a union of the two is real, and each term taken independently is an abstraction possessing no more reality than a shadow. The thinking, acting, individual is actual; mind and body are its coefficients, dissociated by reflective thought and then reified. For the idealist, thinking and acting are solidary, that is, each

depends for its meaning on its relation to the other, and both exist only in the relation. The idealist in philosophy and the relativist in science have no use for substance in the meaning of independent inert stuff, material or spiritual.

The idealistic interpretation in science does not mean, therefore, the undermining of the objectivity of physical reality, and it certainly does not mean that we are to invert the epiphenomenal theory and make the physical universe an epiphenomenon of the mind. Moreover, idealistic interpretation is not a principle imposed from without, serving as a reminder of the limitations of knowledge and of its conditions; it is, on the contrary, the insight which science itself has attained into the truth of its own knowledge and into the nature of the reality of its own subject-matter. It is the adoption of a new mode of representing the universe in thought. The key-note in the application of the principle is the insistence that nature, dissociated from mind, and therefore from the condition of knowing, and presented to mind as a pure objectivity, is an abstraction from reality and not the reality which is the counterpart of knowledge or truth. The concrete reality is the universal thinking which is at once subject knowing and object known. It is pure act. It is what philosophers name Mind, or Spirit, or God. The conditions of knowing and the thing known are coefficients in this universal reality, and also they are co-variants. Nature, or mind, in abstraction has only a reflected or shadow reality.

When we turn from science to philosophy we see that pure philosophical speculation (that is, the reflexion on experience which is free from any bias due to practical interest) converges on the same standpoint. The principle of idealism was formulated at the very beginning of modern philosophy when Descartes, following the principle of universal doubt and adopting the method of clear and distinct ideas, discovered the initial certainty in the existence affirmed in thinking. Modern idealism is a return to that essential and fundamental starting-point, *cogito ergo sum*, but the development of modern philosophy since Descartes has enabled us to avoid the impasse into which

Descartes himself was led by his interpretation of the principle as the revelation of a thinking substance. The thinking which affirms existence is not a substance passive to external influence, it is pure act. For modern idealism reality is change, becoming, creation. Activity is original, and every static form in which activity is immobilized is derived. Correspondingly, for idealism consciousness is not an endowment, or an acquirement, or an emergence, but the nature of the original activity itself, which is conscious *de jure*. The " I think," which is pure act, is the " I think " which is consciousness. Modern idealism, therefore, is primarily a metaphysics of reality, and not, as the old idealism was, primarily a theory of knowledge. That is to say, the existence which idealism affirms is given in the pure act of thinking, and is not something thought as existing independently and somehow conditioning the act. No stuff supports nature rendering it substantially independent of mind. Mind is not a quality, nor is it an emergent mode, of the activity of a primordial substance, a content of space-time, or space-time itself. The existence which thinking affirms is immediate. It is self-sufficient, and does not compel us to infer a soul thinking. Modern idealism therefore does not offer an alternative theory of knowledge to that of modern realism, but takes a different philosophical standpoint. The earlier idealisms—those of Berkeley or of Fichte, for example—reduced objectivity to subjectivity, the object known to a state of the subject knowing, and opposed to them was a realism which affirmed the independence of the object in its existence, and which declared knowledge to depend on an external relation and the internal acquirement of a power of discernment by the contemplating mind. For modern idealism the object known and the conditions of knowing are coefficients and co-variant. The thing thought, the object known, the body of scientific truths, all these are recognized by idealism as positive in their value, but it is denied that they are independently real. Tey depend on the act and are its conditionate, not itsconditihon.

The general theory of idealism in contemporary philosophy is, then, that reality affirms itself as original activity. The

task of philosophy is to give expression to all that is implicit in this concept. In doing so it reforms to its basis the whole mode of representing the universe in thought. It has, however, to meet at the outset a formidable obstacle in regard to the acceptance of the concept itself. Is "activity" substantive? Does "pure act" convey an intelligible meaning? In ordinary common-sense usage activity is always an adjective. It seems to posit substance. It is a strictly dependent idea which describes the attribute or quality of some thing or of some subject. In ordinary thinking universals are abstract ideas which cannot exist apart from the concrete particular instances. To speak of reality is to speak of things, and not of their qualities, or attributes, or activities; and if there are things, they may be inert or active. Idealism reverses this mode of thinking. For idealism, thinking, the pure act, is original and the thing thought is derived. For proof of this it appeals, not to dialectical argument, but to experience and matter of fact. Everything which the mind can present to itself as permanent and unchanging is an aspect or view of what is changing. This is certainly true in regard to all the concepts of physics. The atom is not a bit of stuff, but a stable equilibrium of forces. And it is certainly true in regard to the concepts of biology and psychology. So in philosophy "being" and "nothing," independently of their opposition in "becoming," offer no foothold for thought. The fixed, the abiding, is a view or shape or aspect of the changing, and relative to the observer's standpoint. It is impossible to conceive the derivation of activity—whether it have the form of consciousness, or of life, or even of pure mechanical movement—from originally inert elements; but if we conceive activity to be original, it is possible to derive the permanent, the immobile, the inert. They are mass effects, statistical in their nature. Physics has come to recognize that all its concepts are objects of this kind.

The acceptance of the idealist metaphysics of reality involves three principles which completely revolutionize the ordinary notions. These are the principle of continuity, the principle of individuality, and the principle of community. It is in this

revolution in our ordinary notions that we see the convergence of experimental science and of speculative philosophy in a common standpoint. I will explain briefly what I mean by each.

The principle of continuity refers primarily, at least so far as physical science is concerned, to the concepts of space and time. It is obvious to ordinary reflexion that the perspectives of different percipients must be infinitely diverse, and yet they seem to be all reconcilable in, and to derive their meaning from, the concepts of a uniform extension and a uniform succession, providing the universal and necessary framework of nature. Philosophical theories have oscillated between two views of the nature and origin of the concepts of a space and time one and universal. According to some theories space and time are a direct cognition of present reality. Strictly speaking we do not perceive them, because, being pure emptiness, they offer no datum to sense-apprehension, but their independent reality as the locus of experience is according to these theories cognized with the immediacy of perception. According to other theories, space and time are abstract ideas, derived from the experience of objects and events, of which they are the abstract universal characters. In physics, however, whatever be the philosophical theory of their origin, space and time are concepts, ideally known, and the material for the intellectual constructions of mathematics. And yet, there is an inherent self-contradiction in these concepts which has exercised philosophers of every school since the days of Zeno the Eleatic. For space and time are not only the principle of continuity, they not only provide the framework which enables us to conceive everything as contained or comprehended within one universe, but equally they are the principle of discontinuity, of discreteness or division. There is no limit to the divisibility of space or of time. Their infinite points are absolutely separate. To give unity to space we have to appeal to time, to give unity to time we have to appeal to space, and between space and time considered objectively there is no unity. The self-contradiction is not, as some claim, removed, but emphasized in the modern mathematical

definition of infinity, according to which the infinite divisibility of space and time is attributed to the compactness of the points and instants, the definition of infinity being that no two points are next one another, but between any two there is always another. Space and time are thus conceived as a discreteness which is absolute. Such a principle is as destructive of the reality of activity as it was proved in ancient times to be destructive of the reality of movement. Modern idealism reverses the whole standpoint. For it space and time are the principle of multiplicity, not the principle of unity or continuity. The reality of activity depends on absolute continuity, and this it finds not in succession, but in duration; for duration means interpenetration, which is the contrary of spatial juxtaposition; and the actual or present existence of the past, which is the contrary of temporal succession. Activity is a tension which holds together past and future in the present action. It is not the activity but the reflected action which has extension and succession.

The idealist metaphysics of reality as an original activity or pure act implies an even more radical reformation of the principle of individuality. Individuality, in its universal meaning, is essential to the concept of activity. It is essential because activity involves both unity and multiplicity as factors. It is multiplicity in unity and unity in multiplicity. It implies, therefore, antithetical factors. There is centralization and there is dispersion. It is at once tension and extension; intuition and expression; mind and body. It is possible, no doubt, to represent activity abstractly as an undirected and uncontrolled agitation or movement, as a general flux, but to represent it as real we must conceive it as concrete, and to conceive concrete activity is to conceive individualized activity. But individualized activity is finite. How are we to reconcile our concept with the finiteness of the individual? Idealists are divided on this subject. There are two philosophical theories of the nature of finite individuality. One is that the finite individual is an adjective of the Absolute, that only the universal reality is individual and concrete, and that finite individuals

represent degrees of reality. The other is that the reality of the individual is substantival, and its finiteness is the singularity of its point of view; that while there are infinite points of view, each is the centre of the universe and unbounded by other points of view. We need not decide between the two theories, for the concept of original activity is common to both, and this concept involves a reformation of the principle of individuality. The world of nature, the physical universe, is unrepresentable in its own right as objective existence independent of subjects of experience. The universe is not pure object, it is object-of-experience, and the mind is not pure subject, it is subject-of-experience, and the concrete individual is subject-object in an intimate, internal, indissoluble, mutually constitutive, relation. The common-sense notion of individuality is the reverse of this. It is expressed very clearly in the old creation myth. "And the Lord God planted a garden eastward in Eden; and there he put the man whom he had formed." The environment in which the individual's activity is exercised is conceived to be independent of that activity. The individual is a sojourner in an alien world. He may modify its order and outward disposition, but the world is indifferent to him. The criticism of this view is enough to reveal at once that it depends on an interpretation of experience which is unsupported by anything in experience. This was made clear by the old idealism. Modern idealism rejects it because it is able to offer a simpler and more natural interpretation. All existence is individual, and each individual's universe is as unbounded as is his field of vision. No more in the case of the intelligible world than in that of the visual world is it possible to distinguish a separate reality, a reality independent of any individual. Everyone in saying *I think* affirms *I am*, and in affirming his existence affirms the universe of which he is the centre. No momentary juxtaposition of spatial constituents will yield the individual, because individuality depends on a continuity with an integral past, an individualized past expressing itself in a living present activity. The contention of idealism is that only the individual is concrete, and the ultimate reality of the physical world is not an abstraction,

but is constituted of individuals. Whether individuals are conceived as " degrees of reality," or as monads, that is, things-in-themselves, they, and not a homogeneous matter, or ether, or space-time, are the real.

If, then, there is no concrete reality unconditioned by its relation to an individual mind, and no common object open to inspection by every mind, what is the principle of intercourse between individuals, and how from this intercourse does there arise the subject-matter of physical science ? Modern idealism answers this by a reform of the principle of community. Intercourse between individuals depends on their responsiveness, and responsiveness depends on their activity, and the degree and the nature of the response depends on the direction, the range, and the rhythm of the activity. The identity which underlies community is not in the world external to the individual, but in the constitution of the individual himself. In this we touch the deepest significance of the modern idealist doctrine. Leibniz realized that the nature of the activity of the monads made interaction between them in the ordinary mechanistic meaning of physical science inconceivable, and he attributed their harmony to the wisdom and power of God their creator. Modern idealism follows Leibniz in recognizing the fact that intercourse between mind and mind is not a direct exchange of ideas. It can only be explained by a philosophy of language. For commonsense, on the other hand, language is a purely mechanical process which is capable of scientific explanation. It is generally regarded as an invention. Its employment is considered to be due to an agreed convention between individuals by which adherent signs are attached to objects of common experience. Many philosophers accept this view and pursue the ideal of a perfect language in which every sign shall correspond to one recognizable and unchanging meaning, identical for every individual mind. Idealism rejects this concept of the nature of language as implying a false metaphysical theory. It replaces an irrational science of language with a consistent philosophy. The philosophical theory is that language in every form of it is essentially artistic expression. Expression is a relative term

implying as its correlate the internal intuition of which it is the outward manifestation. The significance of the doctrine is that language is not a passive acquirement by the individual, but an active expression of the individual in precisely the same sense in which the work of art is the individual expression of the individual artist. In language there is no interchange of ideas between minds, as when the content of one vessel is poured into another, and also the expression—word, sign, or symbol—used by one individual and understood by another does not derive its meaning from an external object, but from an internal activity. There is intercourse whenever and in so far as the self-expression of one individual evokes responsive self-expression in another. Language is therefore a much wider term than intercourse. There is language wherever there is internal activity outwardly manifesting itself from an individual centre. There is intercourse only when individuals are attuned to the pitch at which expression can be responsive.

The idealist scheme of intercourse, then, rejects as irrational, and has no need to assume, any form of independent external existence, conceived as cause or condition of our knowledge of a common external world. We start with the concept of concrete mind as pure, self-centred, self-developing act—with the " I think therefore I am." We then seek to make explicit what is implied in the activity of a subject of experience. It is important to put this in the plainest terms, and I can do so best if I take the standpoint of ordinary everyday experience and, instead of reasoning philosophically about theoretical mind or spirit, consider scientifically the actual human individual, our self, our particular mind-body organized for action. It is true we observe this object externally, but we also each know it from within in living experience. When we study the development of its activity as living mind we see that its first and primary activity is æsthetic and not logical. That is to say, it must form the sensuous imagery in which to embody its percepts and concepts. From the scientific standpoint the object which each of us calls self is an external object in relation to other external objects, and fitted with sense-organs to enable

it to respond from within to stimulation from without, but in order that we may conceive these sense-organs in a position to function we must presuppose an internal active production of sensory images. To produce these is the æsthetic function. It implies two factors, an intuitive and an expressive factor. Internal intuitions find external expression. This expression is the sense-imagery. To see how necessary and how elementary this stage in the development of our mental activity is we have only to try to suppress in thought all æsthetic images. The attempt is enough to show us that were we to succeed, thinking itself would be impossible, for it would have no point of attachment. These images are not presented to us by our sense-organs. Sense-organs enable us to have sensations, but sensations have no meaning for the mind which cannot express intuitions in æsthetic imagery. The æsthetic function therefore gives the individual mind its world, a subjective world at first, but a world which the logical function will objectify. This double activity, æsthetic and logical, sense and understanding, is self-expression. It is self-contained. Its products, images and concepts, whatever theory of their import we may hold, are formed internally and not imposed from without. But the human individual is organized for action, its theoretical activity in conscious awareness is clearly purposive. The individual life is essentially a continuity of action ; the action requires direction, and the pure theoretical activity of the mind is subservient to the action which the body needs in order to maintain the organism in being. Thus from the purely scientific standpoint which regards the self as an interacting object externally related to other objects and, like them, externally observed, the idealist principle must be invoked, even to give a scientific description of the object's activity. If images and concepts fail of themselves to satisfy, if they are condemned as subjective, and if science demand an objectivity which shall be free from all subjectivity, there is no way of satisfying the demand. Images and concepts are our whole patrimony.

Idealism, then, rests on the indisputable fact that no individual mind does or can express its knowledge of the reality

common to all minds, save in the images and concepts which are the product of its own activity, and which are its own inalienable possession. Yet every individual mind conceives the universe to be independent of its individual activity and common to all minds. If with idealism we hold that the reality is pure act, can we validate the belief in a common universe and interpret it in a way which will offer a basis for physical science? There are two concepts which in the history of philosophy have claimed to provide this basis—the concept of substance and the concept of cause. Both are the product of the self-contained activity of the mind reflecting on its experience, but both give rise to an illusion or mirage. The concept of substance was the first to be criticized, and has long been discredited. The concept of cause was first directly challenged by Hume, and philosophy since Hume has been more or less occupied with attempts to meet the challenge. Each concept has been put forward ostensibly in the interest of physical science in response to its supposed need of an absolute basis. Science to-day has discovered that it has no need of either. Both are postulates of a transcendent reality, and modern idealism rejects transcendence in every form, and finds that in this it is in agreement with modern science. Idealism, like science, directs attention to actual fact.

The fact which to me seems the departure-point of all theorizing is that the reals which constitute the universe are monads. By this I mean that everything which I am able to endow with an in-itself nature must like myself be a monad, its nature must posit for it its existence and constitute it a subject of experience and centre of activity in its own universe. Such must be the in-itself nature of every monad. If, then there is no external bond of continuity between monads in a common space, time, or matter, what is physical reality, what is the common reality which science requires for its subject-matter? If we accept the principle of relativity there is only one kind of reality which a common object of experience can be. It can be no other than a correspondence, or an order of correspondences, between the individual activities. As it is impossible for two

individuals to compare together their images or their concepts, because there is no way of interchanging them, no basis of identity, so it is impossible for two observers to use an unvarying standard in measuring what for them is an identical event. But, if there is intercourse, if the action of one monad in giving expression to its internal nature calls forth the activity of another to give corresponding expression, then each will find in its own experience the interpretation of all experience. Thus there will arise for the monads a common universe. It will not be given from without—neither imposed by transcendent power, nor revealed to passive contemplation—and it will not be a construction of interpreted sense-data individually experienced, it will consist of correspondences. In such a common universe it will be possible to refer to events which will be the same for different observers, notwithstanding that there will be nothing whatever identical in the experiences of the observers for whom they occur.

Thus from the philosophical side we converge on the same standpoint as that of the generalized principle of relativity. Philosophy can dispense with a hypostasized matter and form, physical science can dispense with a hypothetical space, time and matter, and both gain thereby in directness and simplicity. The reality of the universe is pure act, and its static objectivity is an aspect or appearance. Physical science gets its material from the co-ordination of the universe by observers, each of whom must take his coefficients from the frame of reference which for him is at rest.

My conclusion therefore is that in the modern development of science, which, starting with a dualism of matter and movement, has come finally to present matter as a materialization of energy, we have not a mere analogy with a principle of philosophy, but a convergence of science and philosophy on an identical standpoint. Modern science has replaced the old static atomic theory with the dynamic concept of the electron and the theory of radio-activity. It has dispensed with space and time and immobile ether as the independent framework of the universe, and it has accepted the principle of subjective activity, that is,

the direct co-ordination of the universe by subjects of experience, and the relativity of dimensions to the frame of reference. Modern philosophy, in like manner, starting with a dualism of mind and nature, soul and body, thought and extension, and striving to rationalize this dualism first in a theory of knowledge and then in a metaphysic of experience, has reached a new standpoint in the concept of universal activity, original and concrete. From original activity philosophy can derive the appearance of the universe by interpreting its definite forms, and the aspect they assume to observers, as the expressions of the activity, in precisely the same way in which science generates the matter of the universe from its energy. Philosophy and science are thus able to approach their respective tasks from a common ground, for each recognizes that its criterion of truth and reality is not without but within the subject of experience. For my own part, I have sought to give expression to this principle in a theory of monads, for it was by the concept of the monad that Leibniz originally sought to reform the Democritean concept of the atom, and the monad seems to me to be in all its essentials identical with the principle of the observer attached to his frame of reference, which is the basis of the theory of relativity.

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THE FUNCTION OF METAPHYSICS IN SCIENTIFIC METHOD

By R. B. HALDANE

Born 1857. Edinburgh University. Viscount of Cloan.

BIOGRAPHICAL

At 16 I went to Edinburgh University in 1873 and studied under the late Professor Fraser. I obtained the Bruce of Grangehill Medal in Metaphysics, and the Ferguson Scholarship of the four Scottish Universities three years later. I went also to Göttingen and studied under Lotze. I was much influenced by Kant and especially by Hegel; by his method of approach rather than by his system, or by his detailed theory of the absolute.

On the whole, I think that Hegel has come nearer to the ultimately true view than any one since the ancient Greeks.

THE FUNCTION OF METAPHYSICS IN SCIENTIFIC METHOD

I THINK that I can best meet the purpose of the Editor of this volume if I confine myself to the statement of a single metaphysical principle. A more detailed treatment of the principle I have attempted in two volumes, published within the last two years, and to these volumes I refer for such elucidation in detail as is asked for. They are mentioned later on. Concise statement of broad principle is the more desirable because of the tendency of the times in philosophy. Discussion to-day is apt to lose precision by concentration on details. We fail too often, not only to see the wood for the trees, but the trees themselves, because of undue attention to the bark, and even the bark itself because of our concern over its specks. In this we contrast, not to our advantage, with some of the writers of the past on philosophy.

The primary purpose of such inquiry is to ascertain the ultimate character of reality. This has been its problem from the beginning. An answer appears to be impossible if the question is only whether there is mere agreement of some conception with what the balance, the measuring-rod and the clock reveal. Philosophy appears to be akin to art and religion in this at least, that its standards of truth must extend to more aspects of reality than such only as are concerned with quantitative measurement. The quality and range of the conceptions employed are here of much importance. They must never be looked upon as final or exhaustive of the facts if they present these exclusively in some only of the various ways in which they disclose themselves. As observation of nature progresses,

philosophy has more and more of which to take account, and its outlook must be a steadily enlarging one. The standard of truth from the widest point of view must deal (for example) with aspects which are not confined to merely quantitative forms, and must have reference to factors in reality which are not measurable, such as value in quality. Moreover, just as art and religion, which extend to such values, can never be final, so philosophy never can be final. Its success depends on range and adequacy and on full account taken of values, and these last have to be estimated in modes of judgment, which may be of differing orders, and may also be dependent for their proper expression on the time-spirit.

Much obscurity has arisen from a too contracted view of the meaning of knowledge itself. It is easy to think of it as if it were no more than an object in our experience, and to form, metaphorically, images of the mind as a thing, looking out on an independent object world through the windows of the senses. Such images represent knowledge as a property, an activity which establishes an external relation of an independent object to the mind. But such metaphors break down when referred to actual experience. In no case does it appear that the character of the object is independent of the character and activity of knowledge. If we take as an illustration even the definite standpoint of physical science, shape and measurement present themselves as facts which vary with the activity and position of the observer, or, in another view of relativity, with the way in which, in time-systems which are continuously varying, he partitions the changing events of which he is directly aware, although such shape and measurement are not the less to be taken as being actual facts of nature. This is the teaching of powerful schools of modern physicists. Again, when the biologist studies a living organism, he distorts his object if he insists in treating it merely as a physicist would. His view of the facts which confront him would be moulded naturally by another standpoint which these facts impose on him. He looks at them normally as does the ordinary person for whom life is comprehensible only in the language of life, and a living

being is for him reality of a character different from what appears from the point of view of the physicist, who can take account only of a machine, the parts of which have no relations other than those of externality to each other, and the action of which is determined by causes operating exclusively *ab extra*. In life what we believe ourselves to observe, if our minds are not debauched with unconscious metaphysics, is a set of phenomena belonging to a different order in experience. The whole here controls the parts or organs, not causally, *ab extra*, but as the end which the parts or organs embody and subserve. The hand and the heart do not exist excepting as organs in a body which is alive. If separated from it, they die and degenerate into inorganic matter. With the time relation it is not different. The life of the human organism pursues a defined course from conception to death in the interests of the species. This course, with the developments which are exhibited through it, is determined by the ends the fulfilment of which is characteristic of mankind. The course of our growth is not in the main fashioned by causation *ab extra*. It is actually governed by ends the fulfilment of which quasi-purposively determines the character of human life. The organism is not developed by the operation of external causes. It *behaves* unconsciously in fulfilment of functions in the interests of the whole that are not separable from the existence of its constituent parts, and in the fulfilment of which these parts live. Nor is this phenomenon confined to the higher phases in life. The minute micro-organisms, such as the germs in disease, which reproduce themselves in myriads, do so on a pattern which does not vary. What is observed recurs throughout the whole multitude of individual instances which follow the parent type. To try to explain such a fact through the conception of blind external causation is contrary alike to probability and to common-sense. Here again the facts can be interpreted only through the conception of an end realizing itself throughout change of material in the form of behaviour, and it is this conception which here characterizes both knowledge and what it has before it. Obviously experience

requires knowledge in the fullest sense for the interpretation of its nature.

But from the standpoint of the pure physicist, as such, the facts seem to him more limited, and the reason is that they cannot appear otherwise than as limited. His conceptions are confined to those of external causation, and he is unable to avoid trying to reduce the phenomena of life to interpretation of the same order as that to which the conceptions of external order belong. When we pass to phenomena falling within the order of mind, whether before us as displayed in our external world or in our own souls, we find the principle in another form less abstract indeed, just because nature reveals free mind as one of the most concrete aspects of itself. Here it is not merely unconsciously self-realizing ends that confront us, but conscious choice, free in that it is determined not by causation but by intelligent reasoning. In mind its freedom to choose is implicitly present in every form of its activity. The barest awareness presupposes freedom in activity as the condition of its possibility. To be free in the sense of being capable of intelligent choice is of the very nature of mind.

Now each set of the phenomena of the actual world to which I have been referring can be contemplated in virtue of our liberty to make abstractions from alternative levels. When they turn to life, the physicist and the chemist study the living organism as presenting itself in an abstract form at a point of view different from that of the biologist proper. Their methods depend on conceiving all changes in structure and activity as exclusively the outcome of external causation. Of behaviour as such in fulfilment of ends they can take no account. The level of knowledge to which they confine themselves is partial only, and ignores more of the full fact than that of the student who accepts the cardinal fact of life as teleological behaviour. Although limited in scope and to that extent inadequate to complete reality the methods of the physicist and the chemist none the less possess certain advantages. They can invoke the aid of the measuring-rod, the balance and the clock, if they confine themselves to relations of order in externality, and to

this aspect, abstract and falling short of the full reality as it may prove to be, they do confine themselves. Thereby they get exact measurements of certain kinds, measurements which are essential at their standpoints, and also indispensable for practical purposes, scientific and everyday. For experience comprehends many aspects, inadequate, each of them taken separately, to the full truth, but in which its subject-matter is displayed in the abstractions made by reflection. Knowledge and reality appear alike to possess degrees or levels, some of which are essential for the full character of the particular object studied, while others are inadequate generalizations under special conceptions from concrete and actual facts of observation. Therein lies their relativity. But all of them appear within the entirety of both knowledge and its object, and have their places and mutual relations in that entirety. The truth is the whole, but the limitations imposed on the human mind by its place in nature, and a consequently hypostatized distinction of subject from object, prevent it from exhibiting that whole fully in what we assume without reflection to be direct apprehension. The use of abstract principles has indeed this advantage, that it makes possible definition of aspects, and so clearness and extension of the range of comprehension by symbolic methods. A great deal would doubtless be gained could we reduce knowledge to a system of differential equations, eliminating the contingency we meet with in our individual experience by the consideration only of what has been notionally reduced to relations of the infinitely near between point-events. But still more would be lost if we took such a method to be capable of presenting exhaustively or adequately the principles which govern the behaviour of the facts. For the method is one which excludes the consideration of anything excepting the relations of order in externality and possibly of causation *ab extra*. But even our actual experience always carries us beyond such relations. There seems to be there no entity or relation which has any meaning excepting in a variety of types of knowledge. And it needs all these to express the significance apart from which it is not existent for us. To be

meaningless is to be beingless. Being always implies meaning of a certain kind. It is only when metaphorically we represent knowledge, as we are apt to do with our experience, as an instrument or property of a kind of thing having a subordinate place in its own object world that we break away from recognizing this. It seems inevitable that development of reality should ultimately coincide with development of significance in knowledge. This, of course, does not imply that a dream is real excepting in as far as it is real as an hallucination. It is unreal in that it is not found to import the harmony it suggests at first with the rest of our general experience.

This brings us face to face with the problem of the character of knowledge itself. If meaning and reality are inseparable notions, nothing actual can fall outside knowledge in some form. The actual, the not-actual, and the possible, truth and error, have significance for us only within it as the foundation on which they arise. And yet human knowledge, although it leaves nothing definable outside of itself, does never exhaustively *define* reality. The object of our perception appears to be there independently of our mental activity, and to be an individual and unique fact, an unambiguous object presented in our awareness of it. Now the full nature of that object is more than can be put in general language. It cannot be exhaustively described in language which is, as all language is, general. For words in themselves are ambiguous, in that they fail to define what is unique. There is a particularity entering into uniqueness which knowledge never adequately expresses. We cannot define unique individuality ; what we can say of it is mainly negative. And yet actual fact implies it. Such individuality is no property by itself ; otherwise we could in some measure at least describe it, and this we can never truly do without transforming its character. None the less, though not existent apart from the activity of reflection, it is a logical phase essential to reality. Individuality appears in the uniqueness of the actual as that for knowledge apart from which thought cannot escape from remaining abstract and inadequate to reality, while this is yet itself no self-subsistent entity. In so far as it can be named

as a concept it points to what is only a limiting conception, not without analogy to what we find in mathematics. When, therefore, we scrutinize the general language in which our experience is expressed, we discover that it is not fully or really descriptive of what takes place in space or time. For events are individual, implying the moment of the particular as involved in their individuality, and the progress of their definition through general notions is one which is never exhaustively completed and is in truth unending. Such definition may guide us to the employment of individual symbols with which we can work, but not to individual facts to which these symbols relate but which they never describe in their fulness. The penetrating power of our reflection has no limit, but it cannot exhaust its object, or make us free to rest in what we reach. The phase or moment of the particular in observation presents itself under the guise of an asymptotic limit towards which we can move indefinitely, but only in general conceptions which cannot reach it as an entity completely definable in their terms.

With one qualification I venture to express agreement with the substance of what is said about uniqueness by Mr. Bradley in the fourth of the Terminal Essays in the new edition of his *Logic*. In *uniqueness*, as he points out, the " that " and the " what " fall together. A genuinely and not merely relatively unique fact can never be self-transcendent. The ideal of an ultimate and complete Universe is one which imports uniqueness, which is more than merely such relativity to conditions. Such an ideal Universe must be thought of as determining its own conditions as falling wholly within itself.

Where I am not so certain that I find myself wholly at one with Mr. Bradley is over the significance he sometimes, especially in his earlier books, appears to attach to what is particular as distinguished from what is individual. He seems to claim for feeling as such an independent status. For me the particular, whether as bare feeling or in any other form, can be nothing self-subsistent or actual in itself otherwise than as a merely logically distinguished phase in individuality. It seems to me to be just a limit confronting progressive thought

through concepts, a limit towards which we approach only asymptotically, and which, if taken to import more than this, turns out to be indefinable and to signify nothing that can be actual in itself. Its distinction from the logical moment of the universal which is implied by and enters into all fact is that in experience such as our own, in which the " what " is never exhaustively given in the " that," it is the indication of just the unrealized ideal of the self-completion of knowledge, an ideal everywhere implied in the dynamic striving of our experience, as men and women, but never reached. For myself I do not see how such an ideal of perfect knowledge can be conceived apart from such self-completion and consequent all-inclusion. Such knowledge would be in character individual, and in it the isolation of subject from object would be overcome. Individual in its form it must be, just in that universal and particular stand no longer in antithesis. Such knowledge may legitimately be described as absolute. Unlike our human experience, the whole of what is distinguished in it must fall within itself, so that it is more than merely relational. It is only within it that relativity can lie or be established. For it cannot be other than a system of self-knowledge, individual in its self-presentation and unique in factual character. Its nature is to be knowledge self-mediating and completing itself. Feeling as particularity in connection with a subject that was completely object to itself would be meaningless, and between " that " and " what " there could be no distinction. Such ultimate reality must surely be of the character of knowledge, the name for what cannot be rendered in any terms other than its own, and which has nothing beyond itself. For outside it nothing has meaning and nothing can accordingly be spoken of as existent. Human experience is indeed a type of knowledge, but in its relational and unending character it seems to imply the immanence of knowledge in this higher form as the ultimate reality foundations to it. The conception of such ideal knowledge and of its immanence in our experience seems essential in a complete comprehension of the Universe. For human experience appears

only as a form dominated by relativity, and so in contrast with an ideal knowledge of a higher order. The ideal appears to be one towards which we are guided not in direct awareness, but in knowledge itself, establishing as falling strictly within and not as without it the very conditions to which the relativity of experience is due. Such are some of the reasons which have brought me to the conclusion that it is better to name the foundation of reality, not as experience, but as knowledge in the fullest sense, or else as mind. But the name must not be taken to indicate what we picture as an " entity." The metaphysical conception is of what is foundational to all forms of entity, for these arise only within it. At this point I have felt difficulty in following the line taken by Mr. Bradley and Mr. Bosanquet.

Concepts enter unlimitedly into the constitution of experience though they do not exhaust it. Apart from its setting in thought, the moment of the particular is not significant, and is therefore not actual. It is in this inseparability of universal and particular in both knowledge and its object that the individuality and uniqueness of the actual consists. Take the case of the people assembled in a hall to have the apparently direct experience of hearing a speech. They are persons who physically are mutually exclusive. Their individual sensations depend on their organisms and are their respective private possessions into which no other can enter. And yet only through these very sensations can they see and hear the same speaker, listen to the same speech in the same hall, and perceive a world the same for all of them when they leave the hall. How is this possible ? Not merely because of their sensations, but because they put interpretations which are literally identical on private and exclusive sensations. Now the interpretations thus incorporated into reality are thoughts of the character of concepts, and thoughts are not in truth happenings in space or time. Psychologists may metaphorically treat them as such, for special purposes, as physicists do with life by means of abstractions which distort their nature. But their real character is to be universals, creatures of logic, which are either identical or not identical, and even where

there is difference disclose identity in that difference. Such universals are no happenings or events, and they have not any of the limiting character of the particular phase of sensation. The identity in experience of those present at the meeting therefore depends for its actuality on universals of knowledge.

It is on such universals, on the concepts which are of the essence of interpretation, expressed as they may be in mere symbols, that the reality of the world thus depends. My dog has an experience of his own. In certain aspects, such as the sensations of smell, he has a wider range of perception than I have. But the concepts available to him in interpretation are much more limited. He has no experience of wars or of strikes or of beauty or of religion, or of the universe as such. He has before him a world which is as real as my own so far as it goes, but is much more limited in its significance and consequently in its actuality. That is because its reality is relative to knowledge.

But reality implies the moment of the particular as a logical component. The real is individual and the universals of knowledge enter limitlessly into it. Yet these universals only attain actuality through particularity. This, like the universals of knowledge themselves, is only an abstraction got by analysis, and we can interpret it only by abstraction from the actual individual object. Still, it is not the less essential. We seem to start from an object which is always individual and unique and to presuppose such an object in all our reflection.

But if so, the terms Idealism and Realism seem alike unsatisfactory. For they suggest the view of knowledge as a sort of instrument which is only relational and with which we approach reality from outside itself, instead of one according to which we start from our actual experience of the individual object, and find its meaning progressively as lying entirely within knowledge, knowledge which has nothing definable beyond itself, and finds no limit to its over-reaching capacity. The series of its operations is, indeed, in the appearance of our experience, unending and never summed up. Therein lies the finiteness of our knowledge as conditioned by our place in nature. We

start from what seems always to have a phase in its constitution that lies outside itself. And yet such a phase is meaningless excepting as implied in knowledge and as ultimately belonging to it. Not the less it is in experience, and in our actual human knowledge, that reality lies, and the question is what experience signifies. In it we find not only the universal and the particular as inseparable save by abstraction, but not less what we call subject and object inseparable save in the same fashion. They are inter-related poles in such experience. What is present is present only as for mind, and mind distinguishes itself from its object only to find that object and itself as in the end falling within a single entirety, an entirety which implies both at levels within it, but is itself neither mere subject nor mere object, but overlaps them, distinguished as having places within a single whole. That is why knowledge is relative to reality and why reality is also relative to knowledge. The subject conceived as an independent self can no more account for its experience on the principle of subjective idealism than can the object exclude the mind from itself, as is held to be the case in forms of modern realism. But if we take experience as we find it and analyse its characters, we seem to find such aspects as a derivative outcome of our reflection. We are not tied up to an exclusively momentary experience. For experience seems to be dynamic in its self-expansion and to have levels or degrees, and these are so related that they point to the ideal of a concrete actuality greater than what we take our limited experience to be. Such a concrete actuality lies beyond but not outside our experience. It is apparently the foundation and culmination of that experience, which we interpret by making progressive resolution into the universals of reflection, universals through which yet other levels in knowledge dependent on standpoint are detached and isolated in that reflection. It is so, for example, that we resolve the activity of the life of the organism into the activities of molecules which from a purely chemical standpoint are taken to compose it. We have thereby made an abstraction by which we find ourselves no longer with the apparent experience from which we started, that of an

immanent and controlling whole in the form of an end realizing itself, but of what is real only at a different level in reflective abstraction, an aggregate of particles related merely externally and not as behaving in the fashion of the organs of life. When we carry such abstraction still further, it will bring us to a conceptual world which in its purity from what is irrelevant to its level must be one of point-events indefinitely near to each other, and related in a fashion that can only be expressed in the terms of an infinitesimal calculus. Thus space and time themselves have lost the form of actuality which appears theirs at the more concrete standpoint of the chemist. Similarly, starting from what in our experience we pronounce to be mind, we can so strip it in thought as to exhibit it as if all we had before us were an intelligent living organism, an apparently external phenomenon that knows and is conscious. Thereby we come by an easy abstraction to the standpoint of physiological psychology. But the full reality from which we set out has been left behind. We are now in the domain of life, but not of the free self-determination which is characteristic of intelligence. Even, indeed, when we have present to our ordinary consciousness the full content of our experience in the form of the free intelligence which we accept as of the essence of what we directly perceive in our souls, we recognize restrictions which characterize it. Such free intelligence expresses itself as an organism which as it lives and knows is yet an organism forming part of nature. In so far as it is so at this level or degree in experience it is conditioned externally. Subject and object are naturally divorced. They may none the less point for their own explanation to an ideal which appears with a compelling sense of actuality, realized, for instance, in the experience of the artist of genius. Even then it is only momentarily that this level is touched. Yet at such moments we have the sense that the foundation of finite knowledge lies in what is beyond and yet immanent in it, a standpoint at which reality assumes a deeper and wider meaning than that which we form in daily practice and to which our place in nature binds us. We recognize ourselves at such moments of insight as being more than we

have ordinarily taken ourselves to be, and the immanent infinite quality of experience discloses itself as the final foundation of our actual world. That, I may observe in passing, was the view of reality held by Goethe as being what art and science alike pointed to.

Such a conception of the self starts from the experience that is actual for us, and in the processes of knowledge that actual is resolved from a wider standpoint into further universals. These, while more abstract than the subject-matter at the point of departure, gain in distinctness and in capacity for increase in range through their expression in symbolic form. We can resolve not only downwards but upwards, towards standpoints which are not the less legitimate because they cannot be expressed with consistency in our imagery. We sometimes find them in concrete form in emotion, emotion which is shot through by the reason which makes it what it is. Only man and not the mere animal is capable of art and of religion, and of much else that has meaning only for reason itself. Such reason is abstract on its intellectual side just because it belongs to a level which is not that of everyday practice, but it is no more unreal than the reason which in science abstracts downwards. It is its symbols that are different.

If this be true, we ought to revise our ideas about the dilemma between idealism and realism. For the actual must always be what it is in some individual form which embraces the general as well as the particular, thought as well as feeling. How we resolve it in reflection depends on the categories we employ, and these are present in it, and, according to the standpoints from which they operate, determine reality and give to it a variety of forms and degrees. Such categories cannot exhaust what is actual, inasmuch as they are confined to the phase of the universal in reality. But none the less they are implied in reality and enable it to be treated as exhibiting degrees and orders. The standpoint from which we approach the problem of metaphysics has thus been shifted, and its main historical controversy seems to have been in truth a subordinate one, arising out of a mistaken effort to resolve the real either into

universals or into particulars, to neither of which can be attributed the status of a truly self-contained entity. The actual facts require both moments for their explanation, but only as aspects or logical phases implied in their individual uniqueness.

Such a view does not alter the requirements of scientific method. The standards which have regulated these since the time of Bacon remain. But in observation and experiment and in inference based on them there is something demanded which is emphasized afresh. It is that in employing the true methods we are to be careful that we make use only of the categories found by full experience to be adequate to the subject-matter and the purpose in hand. It is easy to go wrong here, and to fall into error by assuming that the particular standpoint of approach is in itself sufficient if it gives us knowledge belonging to orders other than those of which we are in search. The theologian is apt to do this when he tries to render what he reaches by way of faith in other aspects of experience into scientific propositions. The man of science is equally apt to go wrong if he leaves out of account the possibility that his abstract conceptions may not enable account to be taken of standpoints from which the actual presents itself in a different order of knowledge.

I do not think that the principle to which I am referring is any new one. I find it stated in somewhat different language not only in Aristotle and in Hegel, as well as in other writers, but also elsewhere at various periods in the course of philosophical development. If it is a well-founded principle, it introduces harmony between various kinds of knowledge. It also throws much light on the foundations of ethics, of art, and of religion, and provides new tests for the consistency of their points of view.

It may be convenient to endeavour now to sum up in propositions the conclusions suggested about the character of the real. That character is to be sought neither, as the Rationalists did, exclusively in logical qualities, nor, as the Empiricists did, exclusively in supposed bare feeling. Kant rejected both of

these extremes, but he never sufficiently extended the meaning of knowledge to be able to harmonize them in a larger view of the entirety which cannot itself be broken up into existents conceived as independent in it. The necessary restatement can only be made in terms which are difficult inasmuch as they cannot be based on images. For these can never be exhaustively rendered in human interpretation. Still, it is apparently practicable to exclude much that is misleading, negatively at all events.

In the first place the objects which we know, whatever they may be, can never be interpreted exhaustively if they are taken by abstraction as existing independently and in separation from our knowledge of them. Existence is a mere empty blank when we try to dissociate it from the significance which makes it what it is for us. Now, that significance can never be fully expressed in words, which are concerned only with universals notwithstanding that the residuary aspect, the recognition of which is forced upon our minds, cannot be a separate entity. In the second place, the object and its reality are thus individual facts, and our knowledge of them must in ultimate analysis be individual in its character. Even the symbols of mathematics are obviously of an individual nature, although used only as counters for general conceptions. In the third place knowledge is no instrument or property. It is only relatively and by abstraction that we so treat it. If meaning and existence cannot fall asunder, knowledge must be the foundational fact. Its truth or falseness and the apparent dependence of its form on a particularly conditioned subject are all the outcome of distinctions made within it, for it is within as well as by knowledge that subject and object are distinguished, and become apparently independent phases of the actual. In the fourth place it is accordingly to a search for the implications of our knowledge as we find it that we must turn at the outset of any endeavour to discover its character. Its only explanation lies within itself, and is in the nature of self-explanation by the dynamic and dialectical activity of reflection. Only by abstraction do we present it to ourselves as an independent

subjective phenomenon apart from and confronting ourselves, and it cannot be adequately approached either from the subjective or the objective side alone. For these sides imply each other in the entirety of experience. That experience is just our object world referred to a self taken under the aspect of an object in nature. In the fifth place behind experience there is no use in trying to penetrate. It is always our point of departure. But we can resolve it, indefinitely, though never exhaustively, into universals, and so compare it with itself at different degrees and with the experiences of others. It is thus that we affirm of it truth or error, and penetrate towards its basis. In the sixth place our experience always discloses as immanent in it, and as its implied foundation, such an ideal system wider in quality and range than itself, as has already been referred to. Moreover, it exhibits a variety of levels or degrees which are not reducible to each other, although they appear as abstract and subordinate forms of what is more concrete and therefore nearer to the individually actual. It is its individual character that confronts us as being the character of knowledge and reality alike. These tend to fall together in it, and it is our experience of this fact that is the true starting-point of our abstractions. The antithesis of idealism and realism arises out of the metaphors in which this character is distorted. The false image of knowledge as a sort of instrument or property of something embarrasses us in accepting knowledge in its limitlessness as the foundation of reality, rather than our mere experience as conditioned personalities. Although the universals in which reality is rendered cannot properly be treated as objects perceived, not the less does our knowledge reach over its entire object world, possible as well as actual. Knowledge cannot be explained *ab extra*; it discloses its own character only in its self-scrutiny.[1]

Human knowledge thus never exhausts reality, and yet there is no barrier against which it is brought up. For the moment of the particular is only a limiting one, a beyond which

[1] See Part II of *The Reign of Relativity* and the Introduction to *The Philosophy of Humanism* for the development of the grounds for these propositions.

is never exhaustively reached. It is our situation as mind expressing itself in nature that seems to bring us up against this limit. Every form of inquiry leads us towards, but not into, complete sight of reality. There is an infinity of possibilities in detail which thought does not exhaust, nor does thought, which always proceeds by limiting its own scope through the employment of special categories and the standpoints they determine, ever exhaust its own possibilities or even its own activities. Still, beyond all our efforts is an ideal which is the key to their very reality, the immanent ideal of knowledge so complete that it too must be all-embracing in its form, and admits neither of being represented in any set of mere generalities nor as having any limit which is not seen to belong to itself. Such knowledge must be, it seems to me, of the character of knowledge as we possess it. But in it universal and particular and subject and object may from a more comprehensive standpoint no longer appear to fall apart, and for such knowledge there may be no factor which it is not aware of embracing. Because such an ideal completion of human knowledge seems to be implied as lying beyond that which is our own, in our experience we can never interpret adequately, even in our everyday practice, unless we take account of the fact that it is only as present to thought that there is meaning in even the simplest entities to which we seek to reduce reality. It is their meaning, and therefore their presence for mind, which gives them their actual existence. All reality actually falls within knowledge and owes its whole significance to it. Knowledge interpreted in this wide sense, and with its ideal completion taken into account, thus discloses itself as not merely the foundation of reality but as indistinguishable from it. But so conceived knowledge cannot be adequately represented as the property of a finite subject existing in independence of its object, or of a substance or thing or of mind regarded as a thing in nature. For things and mind alike, with the distinctions between them, have their significance and interpretation only as falling within it.

The world, then, is actually there, before and within us, just as it seems to be. It is a fallacious procedure to try to regard

it as if somehow it were put there by our minds or were built up by them through an instrument uncritically called knowledge. That there is an object world in which we ourselves have our places as objects is a basic fact of experience. Such experience is ours at a certain standpoint and level which might have been different. But for us it is our necessary point of departure : it is our " that." To seek for the genesis of the knowledge in which it appears is to misconceive the problem. For such a genesis must be itself a fact within a knowledge which is its own entire universe. We may study the fashion in which we as intelligent beings have been developed within the object world of which we form part as our own objects. That is a legitimate study for science, but on the genesis of the knowledge within which the object and its process occur such a study can throw no light. The only method is to follow the fashion in which knowledge presents itself to itself, and to discover what the implications are in what is so presented. Knowledge is no event among events. It is a universe to which events belong and within which they all fall.

We come thus to a view of the objective world and ourselves within it as reality of which we are directly conscious in an experience which includes and is inseparable from feelings and sensations as falling within it. Notwithstanding that these are individual facts they are not the less dependent for being what they are on universals of reflection. Apart from these, they have no meaning and no reality. Yet these universals never exhaust what is present to us. Our world is not constituted exclusively out of intelligible relations. Because we see and feel it, because our emotions are part of it, that world is something that is more than the particular minds for which it is there. These minds are objects of experience in and along with it. They are thus finite. But because they are fashions in which knowledge presents itself through them, they are always more than they take themselves to be. Their foundation is broader than they are, and that is why the penetrative power of thought knows no limit that it does not itself create or which it is incapable of superseding. But it is conditioned by its station in nature,

its point of departure. The brain does not merely know—it lives. It is an objective form in the higher aspect of which, and with a different degree of reality, intelligence expresses itself. Thus it appears as finite, confronted by other objects on which in many aspects it is dependent. It has sensations because it is a living organism, although from another standpoint it is more than this, inasmuch as it gives expression to the subject aspect for and through which such sensations, with the distinctions between them, are present. For knowledge presenting itself more adequately than it does in the form of an intelligent brain, such a distinction as that between sensation and its interpretation may not be there. We cannot ourselves, conditioned as we are, witness the disappearance of the distinction. But we may approach indefinitely near to it if we make sufficient progress in the determination through reflection, on the one hand, of the real character of what is not at first recognized as being conceptual in experience, on the other, of the origin and real meaning of the line of demarcation between subject and object.

One of the interesting things in recent science is the way in which a tendency towards something not unlike what I have been writing of is showing itself. A resemblance between the scientific and the philosophical outlook seems to me to be apparent in a recent development of mathematical physics.

Whatever may be the outcome of the discussions that are going on there is one thing which must impress those interested in philosophy. Modern physicists appear to be giving what is really a conceptual character to the principle of relativity. Philosophical writers in Germany, such as Cassirer, are pressing this point, and Professor Whitehead in this country seems to be not remote from it. It is obvious that a highly interesting chapter has been commenced. It appears to be recognized that knowledge enters into, shapes, and makes up reality. For this proposition many of the mathematical physicists appear to have become the most recent witnesses.

I return to the point from which I started. If we interpret knowledge, not as a relation between substances, but as, when ideally regarded, the foundational reality, we are delivered

from difficulties which seem otherwise insuperable. The attempt to so interpret knowledge is no new one. It is the effort which objective idealism has been tacitly and at times explicitly making for over two thousand years, aided in the effort by art and by religion. Knowledge must be given a wider significance than psychologists accord to it. It embraces not only what is logically general, but all that gives to feeling meaning for us. Our striving in it may be conditioned in strength by our station in nature, but the nature of knowledge is such that it can be hemmed in by no barrier. In our daily experience it presents itself at levels or in degrees which we can recognize and with a demarcation of subject from object. But these are on the face of them partial aspects and distinctions within a fuller and more complete entirety which is our objective in a sustained effort to know. It is in the ideal of that entirety of knowledge that we find what enables us to look beyond partial aspects that are merely fragmentary, and, having reached the conception of the entirety inductively as implied from the beginning, later on to interpret by means of it deductively from above.

PRINCIPAL PUBLICATIONS

Essays in Philosophical Criticism ("The Relation of Philosophy to Science," Longmans, 1883).
The Pathway to Reality (Murray, 1903).
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THE PHILOSOPHY OF DEVELOPMENT

By L. T. HOBHOUSE

B. 1864; M.A. Oxford; Professor of Sociology in the University of London.

BIOGRAPHICAL

I HAVE been asked to prefix to my contribution to this volume some account of the manner in which the theories set out below formed themselves in my mind. As an undergraduate at Oxford (1883–87) I was greatly interested in questions of social reform, but in probing them I came upon real or apparent difficulties, sociological and philosophical. I rather innocently took Herbert Spencer's evolutionary theories as the last word of science, and though attracted by T. H. Green's social and ethical outlook I could not see in his metaphysics a valid philosophical solution. Nor did his theory of society satisfy all the requirements of liberty as set out by Mill. It occurred to me, however, that Green's "Spiritual Principle" might represent an "empirical" rather than a "metaphysical" truth, that it might be identified with the Comtist conception of Humanity (especially as interpreted by Bridges), and that the development of this principle might represent the true line of evolution. This hypothesis raised in the first place metaphysical questions which occupied me for some years, during which I arrived at a Realistic view of the field of knowledge (which separated me from the Comtists) and at a conception of the Rational which brought me back into unexpected contact with Idealism. This "organic" view of rationality, which (as will appear below) has come to be for me the basis of knowledge, ethics, and even in a sense of Reality, is due mainly, I believe, to Dr. Bosanquet, though it would not be fair to father my interpretations of it upon him. For a long time I kept it in the background, working at mental, moral and social development on a rigidly "positive" method, but as years went on the remarkable changes that took place in the world of science, the break up of materialism and the opening of wider possibilities, seemed to justify a greater freedom in synthesis.

THE PHILOSOPHY OF DEVELOPMENT

I. The Scope of Philosophy.

Philosophy is the attempt at a rational interpretation of Reality as a whole. In the course of its development it has given rise to numerous special sciences, each of which is the attempt at a rational interpretation of Reality in some part or under some aspect. It has been found possible and profitable, to a point, to pursue such attempts without regard to those final questions of validity and meaning which underlie every investigation, and there has arisen in consequence a tendency to reserve such questions for philosophy, and even to restrict philosophy to their investigation, and so make of it a specialism set over against all the other specialisms. This tendency, however, cannot be permanently sustained. For on the one hand the special sciences when they probe far enough dig into the fundamental questions, as in the mathematical and physical investigations of our own time. And on the other hand, though there may be some general truths which can be ascertained without the aid of any special science, the concrete meaning of such truths is in their application, and their value is the light they throw upon the concrete whole. Philosophy therefore must aim at a synthesis, and the analysis which has come to be looked upon as its special function is not more than an instrument of reconstruction. It follows that philosophy must abandon the dream of educing final truth from meditation on simple and elementary conceptions, to follow another and a longer road. It must share the incompleteness of the sciences, and may well be contented if in return for the admission of partial and broken knowledge it secures something

of their assured continuity of advance. Philosophy will progress when its professors so far acquire the scientific spirit as to treat their results as hypothetical and provisional, to deal with each special problem on its own merits without for ever having an eye on its bearing on their cherished system as a whole, when in fine they recognize that a system must be built up bit by bit from the ground and not clapped on from above without regard to its mutilating or crushing effects.

Philosophy, then, has a synthesis of the sciences as its goal. Gigantic as this problem may be, it does not exhaust its field. Distinct from, and in some measure contrasted with, science stand dogma, emotion, imagination, and practice. To dogma, if this means assertion without grounds and contemptuous of tests, philosophy is merely hostile, for this is the very definition of the irrational. But with regard to the other three it discriminates. Imagination is as necessary in mathematics as in poetry, and a literary creation though it does not even profess to speak truth may contain truth, and truth which it is difficult to express adequately in any other form. Of any such truth a rational interpretation of reality must take account. Emotion, again, prompts judgments which may be false or true and actions which may be good or bad. Here we are concerned not merely with what is, but with what may be, and what we wish to be. Both the emotional imagination and the practical interest move in the region of values, and the rational treatment of value, and in particular the relation of value to reality, has always been a part of the philosophic problem. Philosophy, then, is a synthesis not merely of the sciences but of every sort of appreciation of Reality that conforms to rational tests.

The first step towards a synthesis is to find a point of view from which the ground may be surveyed, some central conception in which many inquiries meet. To such a conception the philosopher is led by the very notion of a rational test. For reason is an expression of mind, and the analysis of reason, its proofs, tests and valuations, opens out the wider question of the nature of Mind and its position in Reality. Does mind

create reality? Does it create it in the very act of cognition? and is that why we can trust our faculties when we use them aright? Or is the mental a casual and superficial effect or appearance of realities which in their true nature and interconnections are purely physical, an effect but not a cause, an epi-phenomenon? Or is it co-equal with the physical, a name for one of two great causes or classes of cause that in their interaction make the world such as we find it? Questions like these have run through the history of philosophy in the narrower sense of the term. But they will not be solved by abstract analysis alone. In dealing with them we must lay great special sciences under contribution—the science of mind to begin with, and on its right hand and its left the sciences of society and of life. Where science ends the arts begin, and to understand what mind is we must consider what it is known to create and how it works in creation, to what ends and on what methods. Lastly, so far as our experience goes we can bring together all that belongs to life, thought, morals, religion, imagination and art as the world of mind, and all that lies beyond it, either hostile or indifferent, we can distinguish as the world of matter; and this dualism is then seen as the central problem of our thought, the question to which all others lead up or out of which all emerge. Is it a true dualism? Is it apparent or real, relative or fundamental? What is mind, and how does it operate? What are its methods and aims? What is the relation between Mind and minds? What is its origin and history? What is its place or power in reality?

2. The Nature of the Rational.

Let us begin with methods and aims, for these underlie everything. As against recent criticisms, I would reassert that a Theory of Knowledge lies at the basis of knowledge itself. For the theory of knowledge is merely the attempt at a comprehensive statement of the kind of data and methods upon which knowledge depends. Moreover, it leads us back to the

question of valuations and rational tests which was the starting point of our question about mind. What do we mean by rational tests? What is the Rational, and why do we give it the supreme place? The broad answer to this is that the rational is the articulate whole so far as we can apprehend it, and that is why it is superior to any part. A firm grasp of this principle which is due to the Idealists, and more particularly, I think, to idealists of the British school, is the key to a Realistic philosophy of knowledge and of the nature of mind. Ordinarily, and at the start quite rightly, we think of reason as that which requires proof for assertions, causes for effects, purposes for action, principles for conduct, or, to put it generally, thinks in terms of grounds and consequences. But reason is not satisfied with proximate grounds. The cause must have a cause, the immediate purpose implies a more ultimate end, and here it is that difficulties begin. Unless it can find some ultimate ground, reason is threatened with infinite regression, an endless chain which hangs on nothing. So far as knowledge is concerned, ordinary thought proffers two grounds of assertion or belief as ultimate—first principles of thought and the facts of experience. Truths of these two classes are thought to be known intuitively, i.e. by merely "looking at" the object which they concern. In the one case we look at the object literally with our eyes, in the other some elements are propounded to our mind, and as soon as we have them clearly before us we predicate of them a certain character or between them a certain relation. It might then be supposed that the search for rational grounds would terminate in immediate judgments of these two classes. Such judgments, however, would themselves be without ground unless we take the certitude of our immediate response as itself a sufficient criterion of truth. But this is readily seen to be impossible in the case of judgments of perception, for we see the stick bent in water just as certainly and immediately as the stick straight in the air, and it is not our immediate but our revised judgment which is correct here. Nor are "intellectual" or "instinctive" intuitions immune from error. It

is not difficult to produce an illusion of necessity in the region of ideas, and even axioms of old standing and general recognition have been disputed. The immediate judgment is the deliverance of the mind in response to the stimulus of certain elements or objects. It depends, then, not only on the objects but on the constitution of the responsive mind, and the mind is not infallible. Its response may be determined, for instance, by emotional predisposition, so that the rightness of a certain act appears to us on the mere consideration of it as plain beyond all need of proof. It may be limited by lack of imaginative capacity, so that we dismiss as inconceivable something which is quite intelligible to those of larger or more elastic ideas. Our ancestors found it difficult to conceive man walking at the Antipodes, and on a certain view of gravitation it would in fact involve a contradiction. We find it difficult to understand the meaning of a space which is finite but not bounded, or of a space which is curved. It does not for the moment matter whether these conceptions are just or not. They are conceptions formed by able men, and it is not rational to reject them on inspection because our minds turn away from them as inconceivable. Felt certitude, the immediate deliverance of the mind upon a suggestion made, is not a sufficient and final criterion of truth, and what appear to be the simplest axioms need, like other judgments, examination, criticism and corroboration.

We seem, then, in the end to be always appealing from one judgment to another, and to be nowhere in sight of a fixed point above all question. Thought seems to move in a vicious circle, or to link arguments in chains which, after all, hang loose without support. This would, in fact, be our predicament if immediate judgments were without intrinsic worth. But this is not the case. The alternatives of absolute certainty and absolute nullity are not exhaustive. Our immediate judgments, though not final, have provisional value. They are as they stand apparently true, forcing themselves upon us with a degree of strength and clarity which is entirely their own. Experience shows that such judgments may at times conflict

with one another and therefore require correction. But they may also corroborate one another, and it is by this method that their provisional value is confirmed. The basis of rational belief lies in the interconnection of judgments each independently formed with a force and clarity of its own. Every judgment that enters such a system gives it support and is in turn supported by it. The whole rests upon the parts and in turn maintains them, and it is this organic principle of mutual support through interconnection which is the Reason.

Such a system is capable of growth and of maintaining a recognizable identity through modification. Since our experience and the thought founded on it are partial, it is not in accordance with reason to claim finality for the system established at any given moment. There is always the possibility of amendment in the light of further truth, and the final claim of reason is not that it has attained truth here and now, but that it is the method of growth in understanding. Its superiority to any other claim as of emotion or intuition is that of the whole to the part. It weighs every judgment and every mode of judgment impartially, and gives it the value which the comparison with other judgments allows. It does not therefore set up one "faculty" above others, but maintains the whole of the faculties against the claims of any one by itself.

We are led, then, to view human thought as an organic structure maintaining itself by the mutual support of its parts, growing, and modifying itself as it grows, through the constant assimilation of fresh experience. New data pour in upon us every day of our lives. More rarely there is a new stimulus, a wider or deeper vision. So far as we are rational, we neither reject these new data nor yet allow them to disorganize our minds. We have to correlate them with the old content, and, if we can do no better, to hold some things in suspense until we can attain consistency, and it is this correlation which is the especial work of thought. The speculative reason, then, is the continuous and comprehensive effort towards harmony in experience, or, to be more precise, in the cognitive judgments

which interpret experiences. The practical reason is the same impulse applied to all of our experience that we value—that is, all that excites feeling and therefore stimulates action. Here, again, manifold experiences of every living being directly excite fear, resentment and recoil, or willing and glad acceptance. Experience is either in harmony with feeling, that is, supported by the feeling which it excites, or at odds with it, and this relation directly determines our immediate impulse. But what is in tune with one feeling may be at odds with another. The immediate response, the intuitive judgment, is no final authority. In the eye of reason another man's feelings count as well as mine, and, in fine, the impulse of reason is to a pervading harmony in the entire world of feeling and experience. It is once again an interconnected whole, only in this case the elements must lend one another not merely theoretical but practical support; and the harmonious system thus conceived as an ideal is by no means a system which we find in existence, but one which as rational we seek to achieve. The basic principle is in the one case the consilience of cognitive judgments, in the other the harmony of the world of activity and feeling. With this difference of application, the organic conception of reason applies alike to the sphere of knowledge and of action. In the sphere of conduct it is not the part of reason to furnish abstract principles for the control of impulse. Such principles, being without impulsive force behind them, would control nothing. The problem of the practical reason is to develop the elements of a working consistency, mutual support, or, as I call it, Harmony, within the entire sphere of impulse feeling, and the "force" of the rational is the summed energy of the felt needs acting as an organized whole. Rational aims focus the felt wants of man so far as they are consistent. Reason operates on the primary impulses by purging them of mutual inconsistency and shaping them into contributory elements in a system of life by which in turn they are in their modified form sustained and furthered. Similarly, in the world of knowledge the immediate judgments that arise on the stimulus of experience are corrected by interrelation, and as

so corrected are woven into a system which stands together as a whole, sustaining like an arch the elements of its own fabric. Just as there is no cause outside Reality which explains Reality, so there is no fact outside the organized system of our judgments which certifies the system, and no authority outside the coherent expression of universal human needs which sanctions our morality. Our thought and our conduct do not hang from a peg fixed in something more solid than themselves, but grow in inward coherence and outward reach through the underlying interconnection of their elements.

Such is the organic view of knowledge and conduct which constitutes the great permanent contribution of idealism to philosophy, and is expressed by idealist writers in the doctrine that the truth is the whole, and the proof or explanation of the part to be found in its relation to the whole. This needs only to be completed by the converse proposition that the explanation of the whole is to be sought in the nature of the parts, which it must hold together in order that it may come into or remain in being. The organic view defeats itself if it makes of the whole a primary principle which will at once turn out to be one element among others.

3. The Objective Reference in Thought.

It is unfortunate that this view lends itself readily to the conception of completed knowledge and perfect conduct as closed circles with no reference beyond themselves. Reality is then apt to become identical with knowledge and the ends of human action with the action itself. These conclusions are contradictory to the claims of knowledge and the springs of conduct. An object is not as such the action which secures it, nor is it good because the action is good. What is good is a world of experience in harmony with feeling. This is the rational expression of our felt needs, i.e. it is the object of those needs so far as they are mutually consilient. Action is good so far as it belongs to such a harmony. True, an act may " belong " not as a mere means but as itself a part of the

harmony, and this, in fact, holds of moral actions. But it holds not of moral action alone, but of every sort of unimpeded activity and, beyond the sphere of activity proper, of emotional, intellectual, æsthetic and even sensational experience in which no conflict is involved. Morality is a constituent of a wider whole, and the judgments by which it is rationally justified are judgments referent to the entirety of life. Nevertheless, these judgments with their width of reference have and can have no standard of comparison, no proof, no authority, but that of mutual consistency and mutual necessitation.

Similarly knowledge is a body of judgments, which of course is part of reality in the sense that the judgments are formed in living minds. But each of these judgments is the assertion of an object which is not the judgment itself, and the whole system of judgments asserts an entire system of objects which as a connected whole is Reality so far as known and understood. Yet of the truth of any judgment in the system we can be assured only by appeal to another judgment within the same system. The system is, we maintained, ideally a closed circle, and yet at every point its reference is beyond itself. This is a real or seeming paradox from which the idealist recoils, and his endeavour is in one way or another to bring Reality within the system. The simplest method was that of Berkeley, who made the existence of the object identical with the perception of it. The more elaborate method was that of Kant and his successors, which made the mind contribute in greater or less degree (as the method was more or less wholeheartedly pushed through) to the constitution of the object. Realism will have nothing to say to any of these methods. The esse of a thing is not its percipi. Nothing exists because it is known, but is known because it exists. Knowledge is a relation between some existent and a subject that knows it. Where no such relation exists there is a subjective act only, and if there is an assertion, a false assertion. The subjective act is an element in consciousness and takes various forms, as of awareness, thought, questioning, assertion,

denial. No quite convenient class name covers all such differences of attitude, but the term " cognitive " seems to have come into use, and if we divest it of the suggestion of knowing which etymologically it implies we may use it as a general description of the act of consciousness so far as it is not conative. This subjective, cognitive act, then, has an object. If it is an assertion it asserts that the object exists, and if the assertion is true, the object does exist. But how is this to be known ? Not, if our account of knowledge is true, by anything radically different from the original assertion, but by comparison with assertions of the same kind. We should begin by asking why our first judgment should be doubted or denied. The answer to that will always be that the object asserted has some point or other which brings it into relation with other assertions, and one assertion turns out incompatible with another. So, conversely, the judgment is corroborated by the points in the object which connect it with other objects independently asserted. The principles of such correction and corroboration, the decision as to what is to stand and what to fall, belong partly to logic, partly to the special sciences, and cannot be discussed here. The point is simply that our immediate judgments are about objects, that in corroborating one judgment by another we are substantiating the existence of an objective order, and that this is achieved in as far as we find consistency in the objects asserted and therefore mutual consilience as between the judgments asserting them. If the immediate judgments did not refer to reality, neither would the body of judgments. Conversely, if the immediate judgments do refer to reality, the body which is just those judgments as a coherent whole cannot exclude or negate but must affirm the reality which all assert.

Misconceptions of the objective reference in knowledge are, I believe, traceable in the main to a tacit assumption that the immediate judgment must either be certainly true or altogether worthless. Natural Realism sets out with the former assumption, and confidently maintains that in perception an external object is directly given, and given as external. Faced with

the difficulty of illusion, it leans its weight on the second limb of the proposition. I am to be directly conscious of an external order as external though I may be deceived as to the particular contents of this order. But if this is the case, my immediate or intuitive judgment is, as it stands, in error. Its immediacy does not save a great part of it, and it follows that immediacy of deliverance or response is not, as such, a sufficient ground of certainty and truth. The only knowledge that seems above doubt—this seems to me to be the postulate which haunts Realists and Idealists alike—is the knowledge which actually *is* the thing which it knows. This was the basis of the Berkeleyan "esse is percipi." Modern Realists saw the fallacy of this principle, but in seeking to get away from it have tended to fall into the opposite fallacy that percipi is esse. Our perception of the reality is the thing itself, or an Appearance of the thing radiating as it were from it like a Lucretian "species." If this is too crude, at any rate the cognitive act must not be regarded as a perception or as a sensory or intellectual apprehension of the thing. It must be a conative direction of the mind upon the thing. The mind must be reduced as nearly as possible to a blank and cognition to a direction of a conative activity towards this or that element of reality. It is not, in fact, possible to carry through this line of thought without early and final shipwreck, but in order to maintain the independence of the object the Realist will strip the mind as bare as possible and translate everything which makes up our normal conception of mind as far as the elasticity of language will extend into physical terms. Since memory is at bottom in the same case with perception, the remembered experience must either be something past which is experienced now, which seems to be a contradiction in terms, or some sort of persistent appearance or emanation which, whatever it be, is not a memory-judgment. The one thing not allowed is the simple fact that I do at this moment make the judgment that I did this or that yesterday.

None of these difficulties arise if we keep to the elementary analysis of cognition which attention to the process readily

reveals. It consists of two elements in relation, a subjective act aware of, asserting, considering, suggesting, an object. If we obliterate either term we get something that is not cognition at all but simply being—all thought of as of the nature of mind if the one term is cut off, all thought of as non-mental if the other term is cut off. If both terms are preserved subjective acts have all something in common, and this community is one constituent of the general conception which we form of mind. To the object no restrictions can be applied except that it must be such as can in some way come into relation with a cognitive act. But there is nothing to show that it must itself be either mental or non-mental, or that one state of consciousness and therefore one subjective act may not be the object of another. Briefly, there is in the nature of knowledge itself no ground for restricting the nature of the known or knowable. What they are must be learnt from the reports of our immediate judgments in so far as their deliverances are reduced to consistency. The question that we ask about the reality of an object is the question of the order to which it belongs. The dazzling zigzag yellow lines upon the page before the eye may be taken as belonging to the page; that is to say, as elements in a certain thing, this paper, the conception of which is built up out of common elements in a number of experiences and is in turn part of the physical order of reality which has run through all our experiences and become for our cognition a complex object of many recognizable characteristics. But if after this momentary and erroneous reference the sufferer is convinced that it is no peculiarity of the paper but a trick of that old enemy the migraine that is in question, the yellow tracings with their involutions become an element in that system of his own mind which again has become known to him as a system by methods exactly comparable with those which have given him his conception of physical reality. Our knowledge of the contents of reality depends on properly selected and assorted references, and of what is proper our only criterion is mutual consistency. Knowledge as it is the correlation of immediate judgments is also the correlation of objects.

The media of this correlation are firstly the sensible continuity of experience, and secondly the community of character, or resemblance, between different objects of experience. These two elements in our experience suggest the inferences and in particular the generalizations by which eventually we reach our conception of Reality as a connected system. Our primitive inferences, however, are no surer than our immediate judgments. We tend, for instance, to act as if the future would resemble the past, whereas as soon as we set this up as a principle, thereby converting the inferential process into a judgment of fact, we recognize that it is a very loose statement and only true on conditions which require to be fully and carefully specified. When we bring these into account we find an underlying principle which can be stated in more than one form but which turns on the conception of a ground and consequent, i.e. of a universal relation which holds wherever the ground exists, irrespectively of position in time and space. This conception is taken to be applicable to reality in general, so that on the one hand our thought is continually engaged in the search for grounds, and on the other we treat any uniform relation as either (*a*) containing its ground in itself, so that if one term exists the whole exists, or (*b*) dependent on something else, which is its true ground or a condition therein. The inductive part of our reasoning consists in the discovery by analysis and comparison of what is uniform in different complexes, whereby any suggestion of external conditions can be rebutted. This process can never attain complete theoretical certainty, but the generalizations which it yields are constantly corrected and in their corrected form corroborated by one another, and the body of general conceptions so constituted forms the best understanding that we have of reality, and is subject only to such vague and general questioning as arises legitimately from the consideration of the infinite complexities of being and the limitations of our experience and intelligence.[1] Its final claim is, as we said at the

[1] To put it more positively. Our whole thought fabric is relative not in the old sense that reality is dependent on being known, but in

beginning, not that it is certainly true as it stands, but that t rests on that rational method of interpreting reality which corrects its own errors and yields the greatest insight into the meaning of our experience. A rigid theoretical certainty can be reached only by abstraction (as when assuming certain conditions and only these conditions to be operating we deduce the consequences) or by analysis. In the latter case, which is the foundation of mathematical and in general deductive reasoning, we are able to place certain elements before us physically and mentally and to contemplate the whole which they form. If this operation is correctly performed, so that it is just precisely those elements neither more nor less which constitute the whole, then they are the ground of the whole and any precisely similar elements form a similar whole. In general, if the terms are adequately defined the converse is also true and a precisely similar whole can be resolved into precisely similar elements. A possible slip in the proceeding is that other elements enter into and modify our view of the whole besides those which we specify, or, which is much the same thing, that the elements which we take into account are not perfectly definite and unambiguous. These are difficulties of the same order as those which beset our ordinary inductions, where it is the concomitant which escapes our observation that is a source of error. We may infer that the nature, conditions, and principles of valid generalization are in all cases the same, and we are led to conceive the continuum of Reality as a network of universals in combinations of endless variety.

4. Reality as a System.

Our logic moves towards an interconnected system of judgments asserting a Reality of interconnected elements. Now though from the bare fact that it can be known nothing can

the sense that it only includes such facets of reality as our faculties can grasp. These facets may be quite correctly appreciated and yet our use of them in the interpretation of reality might be defective for lack of other facets. Awareness of our limitation minimizes, though it cannot wholly remove this form of error.

be inferred as to the nature of the object known, yet our judgments so far as consistent are reasonably taken to be true. We rightly believe, subject to the possibility of correction, that Reality does in fact conform to them. This is no more than to say that we are right in maintaining them, for they are judgments about Reality. This holds of our general as well as our detailed judgments and of their logical implications as well as of their explicit assertions. Now of these generalities some apply to Reality as a whole. For example, we look for grounds of assertion, and if elements of Reality were without grounds we should look in vain and our principles of inference would be false. Conversely, if these principles are sound, then elements of the Real have grounds and these may be found somewhere within reality as a whole, for a whole of Reality with a cause outside itself is a contradiction. Furthermore, though we may find grounds for what is real at any time in temporal antecedents, i.e. causes, if and so far as we take such causes as separate strands of existence stretching back indefinitely in time, we require some ground for their co-existence. We are thus led to think of things apparently separate as in the end directly or indirectly implying one another, and we have to repeat and enlarge this conception till we conceive Reality as a system of elements each of which at once conditions and is conditioned by the remainder. Moreover, it is not merely the existence of each element but its position relatively to others which must be thus determinate. This implies that the elements in their relations constitute a plan or pattern in which each plays its part at its own point. That is why it exists just there, and so each part is determined by the whole. Yet the whole is nothing but the parts, and each element is one of the conditions that goes to shape it. Once again, then, we have something resembling an organic conception of a whole sustaining and sustained by its parts. This is not because reality must resemble knowledge, but because it appears that certain of the principles of interconnected thought allege such to be the general character of reality. The value of this allegation depends therefore in the first place on the correctness

of our analysis, and in the second on the value of the most complete thought system which we have attained. If this is so far sound that as regards its main deliverances we can call it knowledge, then the generalizations drawn from it by a correct analysis would be true, and this will hold in principle whether our particular analysis is correct or not. The analysis of knowledge, then, may, and as I think does, yield us some general truths about Reality. But if these truths convey a certain structural congruence between knowledge and reality, it is not because the object must conform itself to its subject, but rather, as reflection on the evolution of thought will show, that first by trial and error and afterwards by comparison and analysis of results thought has learnt to accommodate itself to its object.

The test of such a generalization, then, is just that which we should apply to any other. It must be coherently expressed and consistent with other characteristics of reality as experience reveals them. Here the criticism at once occurs that the organic conception gives no account of conflict, disruption and decay. Experience does not show us a world of things all working together in accordance, but rather orderly structures shot through with disorder, wonderfully organized beings that destroy one another, social co-operation marred by conflicts that bring it to nought. How is this reconcilable with an underlying interdependence of things? The answer to this is, first, that, the interdependence of part and whole is a two-sided relation. If each part is conditioned by the rest of reality, it is equally true that it conditions the rest in turn. It is not the mere instrument of an all-embracing principle, not merely submissive but self-assertive. Now a perfect organism still consists of self-assertive parts, but they are so related that each in the most complete fulfilment of its own tendencies aids the fulfilment of the remainder. This is the relation of harmony, and if the world were a perfect harmony then though there would be fulness of life and continuance of activity it would be the activity of members bound up in one another developing each its own nature without inhibition or

conflict in mutual relations. In Aristotelian phrase it would be ἐνέργεια, not γένεσις. The world, alas ! is not made like this. Whatever we may suppose to be fundamental in it and to have distinct existence seems to be conditioned by and so far dependent on the remainder, and yet also to be capable of clashing therewith in the course of its development. We can see, moreover, that the more fully every such part develops, the more it asserts itself, the greater are the opportunities of conflict, and yet it is only in the fulfilment of every part that the nature of a whole can be said to find itself. Each part exists at bottom because something in the whole requires it, and yet it may be at odds with any other part. Like man and woman in the Indian myth, the parts can live neither with nor without one another. But the latter fact is in both cases the really governing condition.

Difficult as this conception may be, it accords better with a rational view of experience than the alternatives of Monism or Pluralism. Monism either presents us with a blank uniformity in which change must be ultimately unreal, or with a tame order of things submissively fulfilling the behests of omnipotence which robs effort of its significance and makes evil a necessity in an inscrutable plan. Pluralism avoids these errors, but if pushed through leaves us with unrelated elements whose interactions nevertheless form the life of the world. Tacitly it denies all ground for the general plan or pattern of Reality, a position in which inquiry will not rest satisfied. We no sooner reach our separate elements than we begin to think of relations between them, and such relations re-establish interdependence. We have to think of each element in two relations as (if the terms be allowed) ego-centric and holocentric, centred on self, following its own line, asserting its own energies, and yet all through resting on a wider whole, and willy-nilly playing a part therein. The whole again is nothing but the parts, but it is the union of all the parts in all their relations, and its self-assertion is the assertion of all of them so far as they are harmonious. Thus from both sides we have something making for fulfilment, and yet the process of fulfil-

ment is at every point involved in conflicts and contradictions which threaten it with frustration.

To put the same points in a slightly different form. Reality is in conflict and is yet a unity. To resolve the contradiction the first step is to distinguish between the organic principle and the harmonic ideal. The organic in general is the character of a whole whose parts are conditioned more or less intimately as the case may be in their origin, development, and continued activity by requirements of the whole to which they belong, while the requirements of each part similarly affect the remainder. The definition contemplates elements with a certain character and tendencies of their own, but incapable of fully maintaining themselves or fulfilling their tendencies without the aid of the others. This lack is what we speak of as the requirement. There are great differences in the degree of mutual dependence. Thus all the deeper forms of social union have something of the organic character, but the individual human beings have a relatively high measure of independence, and though undoubtedly depending on some social relation for the fulfilment of their potentialities may and do change their relationships without loss of individuality. In the animal organism the relation is in general reversed. The whole is primary, the separate cells have relatively little independence and the organs become depressed almost to the level of instruments. In the lower regions of animal life, however, the parts have a more independent vitality, and among the lowest metazoa we come to cases in which the individual more nearly resembles a society. The organic union, then, has a great variety of forms. In all there is some degree of independence in the parts and some degree of mutual dependence, but the two characteristics vary inversely within wide limits. So far as the parts are independent there is nothing to prevent them from inhibiting or conflicting with each other, and it is perfectly possible that any two parts, A and B, though in some one respect necessary to one another, may be opposed in their other tendencies. If that is so, A may thwart B in every way short of destruction. The more complex the whole,

the more numerous the opportunities of conflict, the greater the difficulty of maintaining even so much harmony as is necessary to bare preservation. As a matter of fact, in the ordinary organism the parts do exert mutual pressure and constraint as well as perform mutual service. In the harmonic ideal this would not occur, but the fulfilment of each part would lie in the plenitude of its service to the rest. Thus the harmonic principle is the organic carried to its highest term, but there are organic unions with only so much of harmony as is necessary to bare maintenance. In conceiving the ultimate elements of reality as an organic whole of immeasurable complexity, then, we can understand at once the coherent unity and the multifarious conflicts and oppositions that make up the history of the world. It remains to ask what is the principle of union and whether it is something static or something dynamic—something that, so to say, merely holds the world together while its internal conflicts rage, or something which through all Becoming makes actively for the harmonic ideal.

5. Mind in Evolution.

To answer this question we must turn back to the problem of mind and its position in reality. Our general analysis of cognition has not given the solution of this problem as many thinkers have hoped, and we must look for fresh light. We have, however, in our analysis of reason a hint of the general character of mental activity and this we shall now follow up. We have seen that the general function of mind is correlation —in cognition a correlation of experience leading up to a harmonious system of Thought, in Practice a correlation of Endeavour leading up to a harmony of experience and feeling. The term "correlation" is exceedingly abstract and bare. Its content and even its various methods it owes to experience itself. In general it means the bringing of elements into relations of subservience of one to another, or of all to a whole, and it applies whether the elements are physical parts of a physical structure, or are events of experience, states of mind,

or abstract ideas. The function covers the activities of consciousness, which is the special organ of correlation, from its first appearance in the lowest organisms to the highest achievements of disciplined imagination. It covers the social grouping of mankind. It covers at the other end of the scale the non-mental methods of adaptation manifest in the physical structure of living beings. It thus provides a framework for the entire evolution of life and mind, by reference to which we can place the results of biology, psychology and sociology. The methods and scope of correlation furnish a standard of development and a measure of mind in its own evolution and as a factor in the evolution of life.

In general the living being is a structure whose parts so behave as to maintain the whole which sustains them. In particular it is so constituted that its responses to environmental stimuli are such as in general conduce to the preservation of itself or of its line. Now in every animal organism, man included, the conditions of this adaptation run back at some point or another to inborn and presumably inherited structure. We may act on a given occasion with full deliberation and the clearest consciousness of what we are about for ends which concern primarily not ourselves nor even the individuals whom we most love, but our country, our church, or humanity, ends of which we should never have dreamt if we were solitaries living out our inborn tendencies alone, ends dependent on a complex of social ideas and traditions. Nevertheless, if we inquire into the interest in such ends, the basal sentiments, emotions, urgings of conscience and the like, we come back to something which is part of ourselves and which in interaction with experiences and ideas that have germinated and grown in society, and could have grown nowhere else, determine the force of the appeal to which we are, it may be, ready to sacrifice everything else. There are in man certain root-interests which singly or in combination underlie and direct the course of life, and however frustrated or even ignored belong to and remain in the constitution of the individual. On the other hand, the co-ordination of these interests, the objects in which

they find satisfaction, and in general the means by which they are gratified depend on experience and in particular on the social environment to which we are exposed.

There is therefore for man a certain hereditary framework of life, but of a very elastic character. But there is also inherited something much more definite than this—distinctive modes of response, the interaction of the bodily organs, reflexes like blinking or coughing, impulses as of flight or resentment, and specific emotions in response to definite situations. These more determinate propensities which when deemed purely mechanical are called Reflexes, and when involving consciousness Instincts, are roughly subservient to root interests, and are in normal life under their control in case of conflict. In the animal world these specific determinations become more important, though at least in the higher animals we can still trace the effective governance of true root interests. This governance, however, requires mutual co-ordination, and in proportion as it fails the necessity for accurate *à priori* determination advances, so that we work back to a limit at which the organism either comes into being with certain ready-made modes of reaction or is destitute of a guide and acts at random. That is, we approach the point at which it would become a machine.

There are, then, two methods by which the correlation of behaviour may be effected. The first is by the inherited constitution. The second is by the efforts of the individual throughout his experience. As the latter method advances the former recedes until it remains only as the ultimate basis of experience and effort in general. The correlation of effort and experience we have seen to be the work of mind and in especial of consciousness, and the successive forms which it assumes are the measure of mental development. We cannot here trace the stages of this evolution. In its lowest form it consists in the arrest of impulses which do not give immediate satisfaction, and in the maintenance and perhaps variation of effort until relief is obtained. One step forward is to bring such experiences to bear on subsequent occasions. Innate

impulses then receive a finer adjustment through usage. Habits are formed, and in proportion as the individual is capable of learning its inherited equipment becomes less rigid. The response which the organism gives at any moment is still on the whole that of a preformed structure, but preformed by the operation of experience on the hereditary foundation. Next, as experience grows more articulate, as its elements are distinguished and perceived in relation to one another, it gives rise (when brought to bear on fresh stimulus) to definite anticipation and shapes impulse into purpose. If there is still a preformed structure, it is now one fashioned so as to look forward and adjust its action in accordance with the tendency of this or that movement to produce this or that effect. As this more articulate correlation extends, the ends to which the instinctive impulses in fact lead come more and more fully into consciousness. The means become indifferent and are chosen with a view to the passing situation, and the plasticity of instinct increases. It is probable that this position is reached among the more intelligent animals before the rise of human intelligence. The distinctive advance made by humanity turns on the development of social intercourse and in particular of language. Experience begins to be detached from immediate conation and becomes the object of an interest of its own. The permanent objects and principles of action enter into consciousness and are capable of correlation. The instinctive desire is subordinated to the root interest and the root interest itself to the general requirements of life as a whole. Finally, in the highest philosophical thought the process of correlation becomes a critical method whereby the very structural principles on which from first to last the whole procedure of mind has been grounded are brought into consciousness and critically examined in relation to the results which they yield. It is true, of course, that we can never escape beyond ourselves, but it is equally true that we never become aware of a limitation without in a sense transcending it. All our innate tendencies must continue to operate, but the nature of their operation may be made conformable to a

consistent whole. The whole which thus emerges is the entire life of mind seeking the most complete fulfilment of which its nature and conditions admit, and therefore learning to order the material world in accordance with its own needs. In this comprehensive plan all partial, personal, or sectional impulses have to be purged of everything that is mutually destructive, but the severe control entailed is no lesion to inward harmony and happiness so long as the root interests obtain satisfaction, and there is no reason to suppose any root interests of mind which are radically incompatible with one another. Their consistent and effective expression figures in the world of feeling as Happiness and in outer activity as Fulfilment. The feeling sustains the activity which it enjoys and the achievement in which it delights, and it is this harmony or mutual support of feeling and object which we call the good. It is in this ideal, still of course lying far beyond our powers of realization, that we can see the meaning and value of the work and indeed of the whole evolution of mind. Mind is that which correlates experiences on the basis of harmony. The correlation is at any given stage fragmentary, but the fragments have a principle of growth and relations between them begin to appear. The harmonies are partial, self-centred, and so too often causes of disharmony. But to the governing mind every such disharmony becomes a problem to solve, and it is a stage in the ascent to bring the basis of the solution itself into the sphere of consciousness.

Mind, as we know it, exists in separate centres, as many as there are bodies, and the work of correlation establishes two kinds of unity. There is, first, the unity of the personality which only becomes effective as divergent impulses are brought under the one control, and scattered experiences made available for the consistent guidance of behaviour. There is, secondly, the co-operative unity of different persons, each of whom is a separate centre of feeling and activity. In both cases the unity of harmony is to be contrasted with the unity of control. For control it is sufficient that an impulse or an individual be brought into subjection, no matter how, by

extinction if necessary. For harmony it is essential that the element should be developed, that it should have the fullest expression in a form compatible with a corresponding expression of other elements. Thus the foundation of harmony is mutual liberty. But in applying this conception to society on the one hand and to the individual on the other great differences appear. The development of the individual must be through his self-control and his rational acceptance of the social harmony. Institutions are good which thus cultivate character, and to be forced to deviate from this plan is to lose something. We must even admit that the punitive element in law as opposed to the element of voluntarily accepted regulation is a necessary evil, though necessary it undoubtedly is. The social harmony, however, depends upon the truth that in the main the free development of character—the very sense of responsibility—makes for willing co-operation. The living energy of society rests on a complex of relations called from their purest and fullest expression the principle of love. No such categories apply to the several impulses of man. The impulse as such does not reason, or love, or act responsibly. It is reason itself which gives it its due, having fulness of life subject to consistency as its ideal. Thus though there are true analogies between the inner and the outer republic they are analogies with an essential difference, and on the whole we should recognize the dual principle in the social harmony, the principle of Personality and the principle of Love.

It is in this sense and on these principles that mind achieves its own unity and therewith the power of self-direction and the control of its life conditions. This development is the outstanding feature of the main or "orthogenic" line of evolution from the Protist to the highest ideals of philosophy and religion. Mind peeps out first in disconnected centres feebly adjusting impulse to momentary requirements. As it advances in articulation and scope its elements come into relation with one another. The underlying conditions of its activity are brought into consciousness. Ideas dominate action and ideas in turn are brought under criticism. The very structure which gave rise to mind and even, one may

say, is mind, becomes an object to mind and falls within the grip of its reconstructive energy—a structure that can remake itself. Mind in such an ideal—and we must remember that it is an ideal partially realized in all honest and intelligent social co-operation—resembles Deity in scope and power, only if this is God then God is not a personality, but consists of persons united by love, and does not exist in the plenitude of his being from the beginning of days, but grows into unity through time and effort. To the question thus suggested we must return when we have considered the causation of the world-process thus outlined.

6. Mind and Mechanism.

In the first place we must ask whether mind as such can cause anything at all. Arguing from the physical point of view, thinkers have supposed it to be the functionless adjunct or effect of mechanical interactions between external things and the physical structure of eye or ear, nerve, brain and muscle. These interactions must conform precisely to the law of the conservation of energy, the sum of potential and kinetic energy remaining constant throughout the series of interchanges. It is thought that the intervention of mind involves a change in the direction of some motion somewhere without physical equivalent. This supposition rests at bottom on the Two Substance view, according to which mind is one kind of substance and matter another kind of substance. Yet this view really contradicts the original supposition of interaction, because substance is a self-determining existent, and if mind is substance it determines its being and its internal changes by internal laws. But if that is so, the coincidence of its changes with those of the equally self-determining physical order becomes a miracle of pre-established harmony. In fact, however, in modern scientific thought matter itself is losing substantiality. It is becoming a mode of something more primordial and eventually a mode known by its behaviour. So too is Mind a mode of reality, and though, being minds, we know it from within in a sense in which we do not know matter, we have treated it throughout this account of its

evolution essentially as a mode of behaviour. Indeed, by much circumlocution and by coining suitable expressions to replace all the terms descriptive of developed behaviour which in ordinary usage imply mentality, we could describe the whole procedure in Behaviourist terms as correlation upon correlation without considering what it is that correlates or is correlated. We might imagine a disembodied intelligence utterly ignorant of this world but capable of surveying it, and desirous of understanding the behaviour of the beings on its surface. Incapable of conceiving mind in body, this intelligence would yet have to formulate the actions of inanimate and animate beings in consistent laws, and he would eventually discover that in each order of beings the elements of behaviour are correlated in different ways, and by the order of correlation he would classify them. The fundamental distinction he would discover is this, that some bodies either remain unchanged or respond to a force impressed on them, no matter what it be, no matter what the effect be on themselves or on any whole to which they belong, while the action of other bodies or parts of bodies is conditioned precisely by these concomitants and effects. The action of an element in them or their action as a whole at a given moment is determined by, that is varies in accordance with, the effect which under the circumstances it tends to produce. For these two modes of determination he would have to find distinct names. Our names are respectively the mechanical and the teleological or purposive. In the teleological sphere a thing exists or is done because it tends to produce something, and this something is a character of or a change in a whole to which the thing done belongs or in which it happens. In the mechanical sphere no such elements enter into causation. The valve does not open in order to admit the vapour but because something pushes or pulls it, but the engineer put it there and arranged something to push or pull it in order that when and as human purposes required it would open and admit the vapour.

We should not, then, distinguish mind and matter as two substances, but teleology and mechanism as two modes of action, and the same reality may act in one relation on one

mode and in another on the other.[1] There is no reason to doubt the equation known as the conservation of energy. That composite piece of reality which is your body has within it mind. If the brain were a magnetic field and nerve excitations subject to magnetic influences, they would of course be disturbed and their course affected accordingly. If we knew nothing about this influence we should find the results constantly diverging in a puzzling manner from calculations based on the known data, but once the magnetic field was made known we should have no difficulty about the causation. As a fact the brain is a field of teleological activity. Its energy operates on things in accordance with a law as peculiar to its constitution as the laws of operation in a magnetic field. Under its influence processes are adjusted in accordance with their tendency to produce results in the organism or in a still wider whole of which the organism is a part. Teleology is a specific mode of causation, and in our experience it is the characteristic method of conscious intelligence and so of mind.

Mind thus being causal, what is the actual extent or depth of its influence in the process of its evolution? To a point the answer is easy, for subject to whatever is finally unalterable in things the control of mind goes as far as its knowledge and co-operative will. If our view of development is correct, it is in process of becoming the controlling principle in reality. But what has it been in the past? How has it grown, what part has it hitherto played in evolution? In biology we are wont to look to physical heredity as the vehicle of development, in sociology to the living tradition. The latter is all mind-work, ideas, customs, the training of intelligence and

[1] It is essential to observe that minds and elements of mind (like separate impulses) interact mechanically when not co-ordinated. The mechanical as such is simply the indifferent, whether we think of its nature as physical or mental. But the mental always acts teleologically in some relations and in some degree. Even in its mechanical interactions we often find on close investigation some touch of conational adjustment. If we restrict the relations and lower the degree we approach a zero point which conventionally we call the physical. But nothing compels us to assume that the limit is actually reached in what we think of as inanimate matter.

the moulding of character. But as to the former, which determines the elementary mind structure in each of us, we are apt to think of the mental as like any physical organ, a survival device thrown up by the organism under the conditions of natural selection. Natural selection, however, as is now well understood, does not determine variation. It does partly determine what variations persist, and this by the rigid test of their immediate survival value to their possessor, but it does not explain origins and it does not explain any developments that have no survival value. Now mind is to be traced back to the very beginnings of organic life. There is definite evidence of conational activity among unicellular organisms, and beyond this whatever in life differentiates structural function from purely mechanical interaction is conation. This would be more easily understood and admitted if it were better recognized that there are grades, probably several grades, of conation below explicit purpose. It being absurd to conceive the lungs as animated by the purpose of increasing the supply of oxygen to meet the need of any enhanced effort, it is natural to fall back on the alternative explanation that there is an accurately adjusted mechanism by which the special activity is stimulated. As a matter of fact, such mechanisms on candid examination are often found to lack just the character of mechanical regularity. There is a factor resembling effort, perhaps in no more than the simple form in which heightened activity persists until a certain result is attained, which makes the difference between vitality and failure. We are not to dogmatize about special structures on the strength of general considerations. It is for the physiologist ultimately to decide how far the phenomenon of life can be construed on rigidly mechanical principles. The suggestion here made is merely that if and in so far as they deviate from such principles the cause is conation in some rudimentary phase, and conation is the activity of mind.

Now conation directed to stock preservation has of course high survival value, and so far the development of mind presents neither less nor more difficulty than that of a useful limb. But (*a*) this does not hold of all mind developments.

In some like the æsthetic tastes it is impossible to trace any survival value. Others, like the spirit of inquiry, are dangerous to the individuals all the way from the inquisitive kitten that burns itself up to the too original thinker who is burned at the stake. The cognitive interest is ultimately of high survival value to society, but this value depends on a certain equilibrium with other interests and conditions of life, and the increments are perhaps more dangerous to their individual possessor than a slight deficiency. The same may be said of the social feeling—the very foundation of the success of the community, but again of dubious value biologically to the individual. It is impossible to interpret the development of these interests by small hereditable increments fostered by the relative success in the struggle for existence of those stocks in which the little more is to be found.[1] Useful as they are at successive stages of advance the mind qualities must, it would seem, have a push of their own behind their biological development the counterpart or rather the germ of those deliberate efforts which on the human and social level expand human faculty. (*b*) This view is reinforced by the consideration that particularly in the form of co-operation from the dawn of parental care upwards the growth of mind restricts the area of natural selection and finally reduces it to a minimum by preserving the great majority of the young, irrespective of their power to fend for themselves, to maturity. This virtual abolition of the struggle for existence is in fact the obverse side of the organization of life introduced by mind. Thus it would appear that some qualities of mind are biologically too useless and others a great deal too useful to be explained by natural selection.

The alternative conception of a determinate variation has been generally rejected by biologists because there seems to be no intelligible reason why, e.g., one epidermis should tend to clothe itself with hair and another with bristles, and a third with feathers, and to say that each has a distinctive inherent

[1] The common explanation first hinted at by Darwin that the community in which such interests predominate survives involves at least in human development a complex intermixture of the biological and political point of view which I cannot attempt to unravel here.

tendency in its specific direction seems like one of those metaphysical explanations which merely repeat the thing to be explained. This holds of physical things because *qua* physical one thing does not try to become another. But with regard to mind it is rather different. Mind, as we have seen, is the conational principle in reality. When it develops there is no difficulty in conceiving its germ as carrying the effort to become more, to grow and mature. We must only avoid imagining this effort as a clear purpose, for which germinal mind has not the equipment. But in the light of what has been said of rational harmony we must conceive the full maturity of mind as one, as of uniform texture and interrelated parts. True, within this harmony there is rich individual diversity because the scope of mind is infinitely greater than that of the individual brain, and there are all the quaintnesses and grotesqueries of character due to those abiding humorists the conditions of existence. But mind, we may say, has its normal development limited and even distorted by the conditions of existence ; and if that is so, mind has in it from first to last the conative tendency to fuller expression, limited by the weakness and weariness of the body, checked by the necessity of meeting temporary survival conditions, damped by the indifference of a world unready for the next move. The suggestion is that every development of the spirit of inquiry, of sensitive imagination, or of human tenderness, is an effort of the mind within the organism and an experiment which may or may not succeed.

On this view the method of orthogenic evolution is not natural selection but Trial and Error. Natural selection—I speak of it as commonly understood—is a metaphor for a process which is wholly unintelligent, acts only through physical heredity and moves towards success in survival, nothing more or less. Trial and error has some measure of intelligence [1] behind it, acts through memory and communication and is directed not only towards life but towards a good

[1] In point of fact, trial and error persists long after the formation of clear purpose as the test of the purposes themselves. It would only vanish in a completed system of rational thought.

life. The difficulty is to connect its actions with physical heredity, and in the present state of our knowledge all that we can suppose is this. The mind in the individual throws out new efforts, forms new thoughts, experiences deeper emotions. These have no direct effect on the gametes, but they form the basis of a life which will be the environment for the next generation. Now, since mind is in essentials of one tissue, the germ plasm of the individual who has reached a certain stage carries the various possibilities of development around and about that stage. Which of these is most likely to develop depends upon the environment. But the parent, by giving good effect to a certain impulse, has improved the environment for that impulse and so increased its chances of survival in the next generation. Thus, where and in so far as men by acting on their social impulses improve the social order, they increase the chance of survival for the more socially minded of their sons who in surroundings of disorder were like to have perished. In this indirect fashion trial and error may be said in its lower stages to act through heredity on the racial type. So far mere survival is the test, but in proportion as this is secured the scope for experimenting on betterment is extended. In a word, from germ to anything short of full maturity mind develops its own growth by the method of Trial and Error. It is not a product of the biological conditions, but an independent factor in development to which the biological conditions present a problem to be solved.

7. The Unity of Mind.

But this opens out a much larger question. We have seen that in mental evolution the principal steps consist in the awakening of consciousness to something that is already real, the end that underlies the impulse, the principle on which the inference rests and so forth. Consciousness does not invent but discovers. Undoubtedly what is discovered is modified, assumes a new importance, and makes fresh connections as the result of discovery. Such modification is the essence of development. But that which has developed, that of which we were unconscious, was already there in its fundamentals.

This is in particular true of the unity of mind. When the higher reflection reaches the conception of a bond between all rational beings, even between all living beings, it does not invent that bond. Its affirmation is that this bond exists, has existed and will exist, recognized or not. That is, mind notwithstanding its multitudinous distinct centres, notwithstanding their separation and opposition and mutual destruction, notwithstanding even the hard necessity as it seems to be that the higher forms of life must live upon the lower, has yet some thread of unity. It is not the unity of personality, but the unity which in its highest form is of the nature of Love. Now this unity is developed into a great force so far as it enters consciousness. We have seen it as that which makes societies and religions, and if fully understood it would become the dominant principle of human life. But once again it was always there, not created by our acceptance nor destroyed by our rejection, but rather focussed through our apprehension and so rendered capable of doing the work which it has to do. It is one in principle throughout its development in the growth of human thought.

We are led, then, to think of a certain unity or connectedness of mind as the principle underlying development. It looks, in fact, just like that pattern or interconnecting principle which we saw at an earlier stage to be implied in a rational interpretation of the Real. For the Real, we saw, must consist of interdependent parts. On analysing interdependence we were led to conceive Reality as an organic system, in which, however the elements might thwart one another, they were dependent, each for bare existence in its position among the rest, on mutual requirements. That is to say, the character and relations of the parts are conditioned by the structure of the whole which collectively they form. Now this is correlation, and correlation is the work of mind (for the physical aspect of anything we have seen to be just that in which it acts in indifference to other things). But we must not suppose the correlation to be effected by a mind acting from without. We are speaking of Reality as a whole, and the mind is within. It is itself an aspect of or element

in Reality, just that aspect in which all other elements are correlated. It is, in fact, the principle of interconnection among elements, each with tendencies of its own, by which it is strictly conditioned. Abstract this relation and we have the reverse aspect, under which each element acts in indifference to the remainder. In the concrete both aspects, the Teleological and Mechanical, are presented and their interweaving is the fundamental characteristic of Reality.

But here a complication arises. All the physical aspect of Reality appears to operate quite mechanically. Mind always behaves teleologically to a point, but the limited mind of the individual also acts mechanically, i.e. with indifference, in relation to purposes beyond its scope.[1] Clearly it is only so far as mind is at unity with itself that it can correlate the elements of the Whole. Now we have come upon an underlying unity of mind in the analysis of mental evolution, and have suggested its identification with the correlating principle that we require. Yet there is a difficulty here which should be frankly stated. The unity postulated in the evolution of mind is the unity of connection between distinct minds. The unity of the organic principle suggests rather the unity of a single correlating centre. We must not seek to escape from this discrepancy by treating the organized co-operation of minds in society as constituting one mind, for they are not one as the individual is one. Still less must we degrade the individual to the position of an "adjective" of the universal. Frankly we must recognize the ultimate unity to be of a type in which the familiar forms of unity are combined, and which is not embodied in exact model in any form of partial experience. We have to conceive a mediating unity on which the entire effort of correlation rests for its final consistency. Whether this unity would be less inadequately described as a Central Mind or as a pervading spirit, and whether such a category as Personality is fitly applicable to it, I cannot here seek to determine.

[1] So that the ordinary contrast between Mind and Matter approximates to but does not precisely equate with the contrast between Teleology and Mechanism.

However named or pictured, we find on analysis a conative intelligence interconnecting the elements of Reality. This conception is confirmed by the broad results of experience as briefly indicated in the foregoing section. Nature does not exhibit the consistency of perfection befitting the plans of omniscience, but its structure does maintain itself through innumerable changes, and bare maintenance in such conditions implies continuous correlation of functions. But there is more than mere maintenance. In the process of change, upon the whole, finer and more articulate structures emerge. This is Development, and in Development there is (as we learn from Mechanics) no creation of energy, but a release of energies which are at first so locked together as to inhibit one another, and a co-ordination whereby they co-operate in maintaining some ordered system. Thus not only life and mind but physical structure rest for their development on the adjustment of parts and their behaviour to the maintenance of wholes, and the entire evolutionary process, whatever the waste and destruction it involves, is confirmatory evidence of the underlying activity of correlation, operating continuously with cumulative effect.

Reality, then, is a whole of elements each conditioning and conditioned by the residue. Each has its own tendencies, whence the possibility of collision and mutual arrest. In particular, if it is a mind it has its own needs to fulfil and moves to harmony within its own world. But every element has also its link with the whole, and that is its participation in or subordination to the correlating mind. This mind then is to begin with that which holds things together, the principle of unity and inter-relation. But this mind in turn has its characteristic tendency which is the effort to that complete harmony of which the actual world-structure provides but the rudiments, and this effort operating among an infinitude of elements through an infinitude of conflicts is the process of Reality. Some deny that development can take place in Reality as a whole. We must affirm, on the contrary, that the characteristic process of Reality as a whole is development. Reality is through an interrelation of elements, but whereas

at its lower limit this interrelation is just as much as is necessary to the co-existence of the parts, at its upper limit it has worked all the energies of all the elements into its service.

We have thus answered the question with which we set out (above, page 169). The principle of interrelation is not static but dynamic. It is a teleological principle directed to harmony, and it is, in essence, Mind.

8. The Beginning and End.

The conception of development in the whole raises a speculative question which cannot be discussed in the space available. When we say that the whole develops, we mean the structure of the whole as it is at a given time. This is a mere section through the greater whole which contains the entire process of development. This whole, of course, does not develop, for all development is within it. But does development begin in time and does it end? This raises the question between Time and Eternity on which I would hazard only this. Time has a dependent existence. It is the abstraction of something common to all Processes, and that is why there cannot be, as some physicists are suggesting, many time systems, for all these are comparable with one another. Process, too, is an adjective, a warp on the woof of permanence, wherein the development of an imperfect structure is made possible. Reality as a whole is Eternal, but this does not mean either that it is timeless, or changeless, or merely of indefinite duration. Eternity and time are not quantitatively but qualitatively distinct. The former, if we can grasp it at all, seems to mean the gripping together of past and future in a present in which there is therefore no evanescence or perishing. In this conception time is encapsuled as a factor but corrected, so to say, by its converse. As eternal, therefore, Reality contains time as the factor through which the relation of harmony to its conditions takes effect. In eternity the entire process of development would be present together like the movements of a body laid out in a spatial curve. But would time end with the completion of the process, or should we conceive it as changing its function and serving the activity without

genesis which would seem to express harmony fulfilled? Or should we put it that time ceasing to be a distinct aspect would be merged in eternity? The point of difference is that in time things perish, and as long as there is disharmony it is necessary that they should perish. Even viewed *sub specie eternitatis* they must be viewed as being overcome. In harmonious activity, on the other hand, everything is conserved. Time, then, might be conceived as having a beginning and an end in eternity along with the development which it serves. We cannot here pursue these highly problematical issues. We can only be sure that Reality does not perish and that the end of its development is not the peace of death, but the harmony which keeps all things alive.

Some parts of this account are, and till our knowledge is greater must remain, hypothetical. The clear points are—(1) Reality is a system of interdependent elements. (2) In these there is a teleological factor, Mind working towards Harmony by correlation. (3) There is also a Mechanical factor, the tendencies of the elements so far as uncorrelated. It follows (4) that Reality is not purely spiritual, or "rational" in the sense that it is simply the expression of a purpose. It is rather the effort of a closely conditioned purpose. Evil is not to be explained away. But (5) there is no evil principle in the sense in which there is a good principle. All evil is traceable to the failure of purpose to co-ordinate things which so far as unco-ordinated act in mutual indifference. Evil is not inherent in the tendencies of elements as such, but depends on the conflicts which they bring about when unco-ordinated. (6) The term "Mind" expresses an interconnection among minds which develops into a harmony. Harmony in general is the fulfilment of all faculties and needs of mind so far as mutually compatible.

Behind these general principles lie certain convictions which to my thinking form the fixed points of any rational philosophy. The first of these is the conviction of goodness—goodness neither laid up in heaven nor moving as a metaphysical principle upon earth, but warm and real in the hearts of living

men and women. There are those whose faith is founded on inner certainty of the Divine. There are others of us who have seen something of the qualities we call divine in man, sometimes doubtless sadly broken and mingled with a different clay, yet bearing to any understanding mind the ineffaceable stamp. And there are those more greatly privileged who have learnt to know some nature crystal-clear, compact of mother love, with thoughts by instinct bent on others' needs, sensitively tender, yet of indomitable spirit, fearless and believing no evil, through very selflessness enjoying and reflecting the charm of life. This, the sceptic may say, is to describe a woman as a man sees her in the hour of romance. It may be so, and it may be that in that hour some real things flash out which are afterwards obscured. Be that as it may, there are not wanting those who have put the vision to the test of lifelong companionship, only to find it gaining in clearness and truth. No other relation of life can yield such intimacy of understanding, yet comradeship in great causes does not fail to reveal men of noble thought and faithful heart, men who sink themselves in their mission, but do not let their friend sink, men whose staunchness stands the test of long years. The being of such men and women is not matter of faith but of experience, though an experience which, like every other, requires the eye that can see. But what general conclusion can philosophy draw from it? you ask. If there are the noble and the good, are there not also the mean-spirited and the knaves? Why should the one be the more significant than the other? To this question the theory of development supplies a ready answer. The failures are the undeveloped, and if you would know what development can do you must look at its successes. More precisely, we conceive the elements of things acting severally each on its own lines and yet drawn together in a relation which at its height becomes Love. Whatever is repellent, fearful, suspicious, unimaginative, brutal, has remained relatively speaking self-centred. All that love touches has the nobler quality. But of this we may be sure. No man or woman such as I have ventured to speak of, nor yet any such quality as theirs, though less developed and

marred with imperfections, ever came out of the clay, unless the clay itself has mind. No rational observer (if we may revert to that fancy) from another universe would admit such a hypothesis. With the utmost allowance for what development could do he would demand some continuity, and if he was assured that their origin was from matter he could only infer that matter was alive and instinct with some very wonderful imaginations. As the geologist is sure that the isolated boulder does not spring out of the alluvial on which it rests but is a detached fragment of the mother rock, so with even stronger logic would he refer the radiant soul to its matrix of spiritual being. Every detailed hypothesis of origin that we may construct may be faulty. The immanent spirit may be no nearer the truth than the transcendent Creator. The idea of development may pass away like that of special creation. One truth will stand firm. The world which has engendered such beings as we have known is no mean world. It is a world worth living and fighting for, the world which they have trodden. It is the dwelling of a spiritual power, be it what it may, which will some day come to its own, be that how it may. Of the how and the why our philosophies give what account they can, but behind them lies something surer than faith, firmer than abstract reasoning, those most intimate and sure experiences which reveal the true capabilities of the human soul.

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PHILOSOPHY AND RELIGION

By W. R. INGE

Born 1860; Eton and Cambridge; Dean of St. Paul's.

BIOGRAPHICAL

I HAVE not, I regret to say, had the sound philosophical training which is given to students in the Oxford School of Literæ Humaniores. At Eton, "my most kindly nurse," we were not, in the seventies, encouraged to think that life has any problems to solve; and at Cambridge "the riddling Sphinx" (as Œdipus says) "compelled us to attend to the matter in hand, and to let the unknown go." I have often doubted since whether it was worth while to keep in such rigorous training for four years; but at least I routed the Sphinx; the examiners always placed me where I wished to be. As a classical tutor at Oxford I began to lament the gaps in my education, and to search for a philosophy by which I could live. This I found in those Christian mystics who were steeped in the Platonic tradition, and I soon discovered that Plotinus is the father of those who wish to climb the hill of the Lord by this path. My book on Plotinus was nearly ready when the invitation to a Gifford lectureship enabled me to publish under these pleasant auspices the fruits of over fifteen years' study. I owe these biographical details to my readers; for though I have read much and thought earnestly, I cannot suppose that as a metaphysician I am quite worthy of the distinguished company in which I find myself between the covers of this volume.

PHILOSOPHY AND RELIGION

I AM unable to distinguish between philosophy and religion. If the perfectly real can alone be perfectly known, and if to know God, the perfectly real Being, is eternal life, the goal of philosophy is the same as the goal of religion—perfect knowledge of the Perfect. When we say that we know a thing to be true, we assign to it a place, not in a hypothetical world of mathematical symbols, but in a real world of actual values, and in realizing this world logic is only the instrument of an activity in which the whole personality is involved.

To call this pursuit of divine knowledge intellectualism is to mistake the meaning and character of knowledge. We only know what has become part of ourselves, what we understand and what we love. Huxley is reported to have said: "It does not take much of a man to be a Christian, but it takes all there is of him." The first clause sounds disparaging; but perhaps if a man has put "all there is of him" into the highest of quests, he is already a good deal of a man, and in the way to become more. Perhaps we may even say that such an one will end by being no mean philosopher, though he may never write a book or give a lecture. "A lover of wisdom" is a modest title, and in loving the highest Wisdom the quest is an earnest of the prize, for, as Pascal and many of the mystics have heard the voice saying, "Thou couldst not seek me if thou hadst not already found me." This is the truth in the ontological argument. We did not make our ideals. The best that we can think is a promise of the best that is. To believe this is an act of faith, but of reasonable faith. In all

philosophy we come at last to a point where a man must trust himself.

What we love and deeply care about, that we know and that we are. The unquestionable (if not unquestioned) fact of purely disinterested mental and emotional activity is of great importance as proving that man is not so " poor a thing " as not to be able to " raise himself above himself." It is in fact only by means of self-forgetfulness that the personality can expand, establishing new correspondences by which the character is exalted and enriched. The motive is never mere curiosity, but something akin to what Spinoza calls the intellectual love of God. The concepts of philosophy are hypostatized ideals, recognized as supreme realities.

It is easy to play at philosophy, as it is easy to play at religion. The attempt to build a coherent world in thought is an interesting game. But until we ask ourselves what the counters stand for—what they are worth in terms of life, we have been only playing. A philosophy which sets us no tasks is not *our* philosophy: it is hardly a philosophy at all. For though a rule of life is not the direct object of our search for truth, a search which acknowledges no goal outside itself, the truth which we seek is a kingdom of values, into which we cannot enter while we are busied only about their symbols. There have been philosophers, of whom Hume by his own confession was one, whose speculations were an intellectual diversion; in the hour of bereavement, for example, he was able to find comfort in beliefs which had no place in his theoretical system. It is quite possible that thinkers of this type avoid inconsistencies like those which have been found in the " God-intoxicated " Spinoza. No system of thoroughgoing rationalism has yet been discovered which finds room for all the intuitions and aspirations of the " mind in love."

For this reason, the poetical imagination has been welcomed and given free play, not only by the crowd who do not philosophize, but by some of the greatest thinkers. Mythology claims a large place in all religion, and it cannot be kept out of philosophy, as soon as the thinker tries to live by the rule

of his thoughts. The philosopher's heaven is not peopled only by bloodless categories. His imagination fills it with warmth, light and colour. The ideas are clothed with forms; the determinations of the Absolute become quickening spirits. "Create he can Forms more real than living man"; but it is a living man who creates the forms out of his human experience.

There is no hard and fast line between the imagination which enriches experience and the arbitrary fancy which impoverishes it. The luxuriant outcrop of myth may choke both philosophy and science. In religion, too, myths congeal or evaporate, and either process is fatal to them. Their province is to give substance to the faith which wanders in worlds not realized, bridging over, in some sort, the gap between the world of concrete fact and the world of value, between the things that are seen and the things that are not seen. But when the imagination no longer plays upon the dark region which it has filled with forms of its own, those forms either vanish into thin air or petrify into hard facts which claim falsely to belong to the world knowable by science.

Plato shows his greatness by using the mythical form freely, without confounding it with science. Those of his interpreters who have neglected the myths as otiose parts of his teaching have missed that part of his message which he may even have considered the most valuable. For he was as much a prophet as a systematic philosopher, and was not content to write always in prose. He was conscious of deep convictions which were incapable of logical proof, and so he expresses them in the language of poetry, using the legends of the gods or the language of the mysteries, and saying, "Not this, perhaps, but something like this must be true." He is content to leave his eschatology in a mythical form, as indeed any eschatology must be left so.

The real world, as I understand it, is neither the material universe regarded as existing independently of mind, nor the thought of a universe in the mind of man. It is rather constituted by the unity in duality of thought and its object, the

two being inseparable and in complete harmony. If this is true, the Spirit who makes the world and sees it as it is must be a transcendent God; for finite spirits do not know the external world as it is; none of them know much of it, and there are parts of it which are entirely unknown to any finite mind. By far the largest part of the ponderable matter in the universe is withdrawn from the knowledge of any finite living being. My view of the world depends therefore on the belief that the Creator of the universe lives his own life not in it but above it. The creation is an act conformable to his nature, but not necessary to his existence. His objectified thoughts are not himself but his activities. In the world of space and time the thoughts of the Creator are transmuted into vital laws. In the eternal world, "he spake and it was done; he commanded, and it stood fast." But in the half real world of becoming this is not so. The Idea is doubly split up, spread over many places and many times. It is an energy putting out force against that which impedes it. In many particular instances it may not be realized within our experience.

The conditions of such a world as ours are so different from those of a perfect eternal world that it is hard to avoid an intractable dualism except by reducing the world of becoming to a mere appearance, or the eternal world to an unrealized ideal. It is impossible to solve the problem by setting an imperfect world in the present against a perfect world in the future. We cannot levy unlimited drafts on the future to avoid bankruptcy in the present, like the belligerents in the late war. These three expedients have all been tried, and all have manifestly failed. If the world of time and place is unreal, we are denizens of a sphere in which nothing ever really happens. The will is an illusion, and no explanation can be given of the fact that time and change and moral choice seem to us very real indeed. If, on the other hand, we hold that the ultimate values do not belong to the realm of fact, but are merely ideals which should regulate our conduct, we have abolished the absolute standard by which we assign relative values to all experience; we have opened the

door to merely subjective and fluctuating valuations which there is nothing to check; we condemn ourselves to an endless struggle without victory; and in denying an eternal world we are committed to assert the ultimate reality of time, which is always hurling its own products into nothingness, and which carries with it no promise or even hope of unending progress. The third notion, that of a new heaven and a new earth to succeed the present universe, is a mere survival of religious apocalyptism, and has no place in independent enquiry.

What then remains, if we are not to acquiesce in two worlds —a world of substance and a world of shadow, or a world of facts and a world of values, not to be brought together? Reality, I hold, is neither mental nor material, but a realm in which thought and thing, fact and value, are inseparable, neither having any existence without its correlative. The real world is a coherent organic unity, spaceless and timeless, but including all happenings in space and time in their proper relations to itself, that is to say, *sub specie æternitatis*.

That the attributes of ultimate reality are values, and that they may be classified under the heads of goodness, beauty and truth, "a threefold cord not quickly broken," seems to be generally accepted by the deepest modern thinkers. For example, Mr. Bradley writes, "Goodness, beauty and truth are all there is which in the end is real. Their reality, appearing amid chance and change, is beyond these, and is eternal. But in whatever world they appear, that world so far is real." And Windelband: "Logical, ethical, and æsthetic values make up the entire range of the human value-activity which can lay claim to general recognition and the necessity of actual unconditionedness. In each of these provinces the valuation of the empirical mind has a significance which transcends the mind itself. . . . In its metaphysical significance it is a rational community of spiritual primary reality that transcends all experience. There can be, as regards content, no further universal values beyond these three, because in these the entire province of psychic activity is exhausted." These, then, are the attributes under which we know God, and

the real world in which his thoughts are objectified. We are closest to true knowledge when we can see and feel these attributes of God without us and within.

On the other hand, the world of sense is not a stable object of knowledge at all. It is a mental construction from admittedly imperfect data, like an impression of a tune played on a piano in which most of the notes are dumb. Man sees only a few out of many colours, and hears only a few out of many sounds. The superior brightness of yellow is due to ts being near the middle of *our* spectrum; other eyes, adapted to the conditions of life on other planets, would receive and report a different set of colours. What we call things or objects are not at all like what the physicist tells us about their composition. We construct our world for ourselves because our senses, and our intellects too, have grown in response to human needs. So in higher matters, we make nature and God after our own likeness. Ignorance, selfishness, and prejudice warp our judgments, and induce a wrong principle of selection. Nothing can be much further from reality than the "practical man's" notion of it. We have heard, in our nursery days, of a certain pussy-cat who went to London to visit the Queen. But all she saw in the royal palace was a little mouse under a chair. That is, of course, all that a pussy-cat would see. Similarly there are many men whom the world calls successful, who have trained themselves to see nothing in life but stepping-stones and obstacles to their ambition. To others all the world's a stage; to others again it is an arena. It is possible in this world to know the price of everything and the value of nothing. The real values are ignored, and a spurious world of base values is set up, constructed by the perverted will of the subject out of a perverse and distorted selection of objects.

We none of us escape from these distortions, for nobody is able to see the whole of reality, or to see what we see as a whole. The conditions of our life in time compel us all to run in blinkers. We cannot form a judgment without dividing what is indivisible, and thus impoverishing both limbs of it.

It is here, no doubt, that the danger of what is called intellectualism comes in. Our concepts do not correspond with realities, but we are obliged to treat them as if they did. In the scholastic philosophy, for example, we often feel that its excellent logic is futile, because it mistakes counters for coins.

For the Platonist, it is the diremption of a real whole, with the breaches of correspondence between thought and its objects which it involves, which constitutes the unreality of spurious wholes regarded as real wholes. Both consciousness and its objects are infected by being broken up. Crude realism and crude mentalism are extreme examples of this divorce between thought and thing, but the working philosophy of the man in the street is built upon a rough and ready synthesis of " opinions " which are far below real knowledge.

The error is not in seeing outlines where there are none. The outlines exist, though not always where we draw them. The error is in seeing what is within the outlines out of its true relations. All the selfish passions, and some which are not selfish, hypostatize certain aspects of the real, and blind our eyes to the rest. The fanatic frames for himself a false absolute out of some narrow interest, and commits innumerable follies and crimes in the service of a grotesque idol.

This line of thought may seem to point to the new philosophy called pragmatism. The pragmatists hold that since all our knowledge was evolved in response to practical needs, it is useless to try to escape this limitation. Truth for us, they say, is what works, and whatever works may be called true, since we have no other criterion of truth. It follows that we have the right to experiment in any beliefs that we may choose, at our own risk. But it is quite certain that the human mind is not satisfied with this unmitigated empiricism. Deep in the hearts of all of us is the conviction that there is an absolute truth which is true for everybody, and that it is not hopelessly out of our reach. Without an absolute standard, we may dare to say, there could be no relativism. A sounder philosophy maintains that we cannot find out what is true

even for ourselves except by renouncing the reference to personal interests, and endeavouring to enlighten our minds so that the laws of all life, which we assuredly did not make and cannot alter, may become our guiding stars. The mystic also is an empiricist, of a kind; but his progress is *per tenebras in lucem*, and his conviction is, not that whatever suits him is true, but that whatever is true will ultimately suit his transfigured soul. Meanwhile, the purity of the will to truth is one of the greatest—and latest—achievements of civilization. To deny it, as the pragmatists seem to do, is to commit treason against one of the ultimate values.

The tendency of much modern investigation into the conditions of knowledge is to discredit all knowledge alike, which gets us no farther. We cannot philosophize at all without an act of faith; we must trust ourselves up to a point. And there are certain convictions about the universe which a man can hardly doubt, unless he is defending a thesis. That the world as known to science has reality, as embodying ultimate values, we all really believe. We may say if we will that it gives us only an abstract view of reality, that it is only an appearance, and so on; but in the words of an excellent Quaker writer, "the shadow is a true shadow, as the substance is a true substance." I do not hesitate to say that we shall learn more of the nature of thought by studying the external world than by analysing our own mental processes.

One of our most firmly rooted convictions is that there is only one Time, and that, what we call clock-time. *Tempus est quod aequabiliter fluit*, as Newton said. I am no mathematician, but I refuse to believe that either Bergson or Einstein has destroyed a belief which is one of the postulates on which our knowledge of the world is based.

The world reflects, in an imperfect medium, the mind and nature of its Creator. It is perpetual, as its Creator is eternal; it is boundless, as its Creator is infinite; it is regular, as its Creator is changeless; it is rational, as its Creator is all-wise.

It is most unreasonable to expect philosophy to answer the

questions Why the world was made, and How it was made, though the latter question will continue to be asked. There is no reason why such knowledge should have been imparted to us, and if it had been, we should probably not understand it. Heracleitus says that the way up and the way down are the same; and it may be so; but the way up is the path which we are to tread, and we only learn it by experience—*solvitur ambulando*. The way by which God creates finite beings after his own image is not for us to know. We must take the world as we find it.

The fact that intelligent beings are sent into the world to realize qualities which are only potentially theirs to start with, and that a desire for moral and spiritual advance is implanted in all of us, has led some thinkers to regard progress as an inner law of the whole universe, forming in fact its ultimate nature. This theory, of course, involves the belief that time is real, and that in history we may find the basis of reality. This again seems to imply that life in itself is a value, apart from its contents. The struggle is the prize, for there is no prize apart from the struggle. This optimistic estimate of life is of purely subjective import; it is helpless against such pessimism as that of Schopenhauer, both alike resting merely on temperament. But the philosophy of progress swarms with other difficulties. If we had a true history of the world, as a Divine Being might write it, it would no doubt be highly instructive; but history as written by historians tells us little that is at once certain and valuable. We cannot decide with any confidence whether human nature, apart from the accumulations of knowledge and experience, has progressed steadily and is progressing now; and it is notorious that the civilization which is the crown of human achievement so far, has many severe critics and not a few bitter enemies.

The arrogance and absurdity of arguing from the historical progress of humanity—assuming that this can be proved—to progress as a law of the whole universe and of its Maker, become more apparent the more we think about them. Let it be granted, for the sake of argument, that one species on

one planet has, during a short episode in its career, not only made its life more complex, but raised it to a greater worth. Does anyone suppose that this process can be continued indefinitely, or that it makes for the good of other species on the same globe, or that the inhabitants of other worlds are all on the upward grade, or that the inevitable cosmic changes which must make every abode of life uninhabitable after a time will be suspended in certain cases? Is the idea of a *progressus ad infinitum* either thinkable or consoling? And lastly, how can there be progress in an infinite whole? This bastard philosophy, so naïvely anthropocentric and so incompatible with any scientific view of the universe, is intelligible as a by-product of what has been called the age of complacency; but it is strange to find it revived in our own day by Croce and Gentile, and by some writers nearer home. The fact is, however, that when the idea of an eternal world is rejected, the values which properly belong to it are left homeless; and so a desperate attempt is made to save them by attaching them to the world of becoming. The values of the world of becoming, in so far as they are not recognized as brought down into it from a higher sphere (to use an obviously mythical expression), are fleeting and of poor quality; but if, to please this school, we could imagine them as continuously increasing, and prolonged either to infinity or through a vista of ages to which we can assign no end, it would be possible to invest them with an almost unlimited dignity, and to regard them with a religious reverence. It is perhaps in times of disillusionment that men most crave for a philosophy in which a new creative power may take root. The new school, however, seems to have been unfortunate in adopting the one theory of the universe which can be definitely refuted.

It would be absurd to deny that it is a difficult problem to co-ordinate the world of things and the world of values. To me, however, it seems that this is not a correct way of stating the difficulty. There are no things without values, and no values without existence. Bare existence—the "that"—

seems to be an abstraction like a mathematical point. We know of nothing about which we have no notion "what" it is. In other words, all knowledge is of the *quality* of existents. But quality-judgments are related to universal standards which are part of the texture of the mind. Unity, coherence, freedom from self-contradiction; regularity, harmony, beauty; conformity to some worthy and rational end—these are standards to which we bring all experience. The world known to science is just as much a realm of values as the world known to religion. The trouble is that the values are not the same. Goodness, truth, and beauty are attributes of reality which have each their own characters. For example, truth and beauty are free from the desire and expectation in which the moral will moves and has its being. Morality deals in part with negative values, which appear in æsthetics also as the ugly, but in science only as error. It is doubtful even whether a hierarchy of any kind is admissible in science. The biologist as such has no business to scorn the parasite or to lecture the cuckoo. Our dualisms thus result, not from the impossibility of combining the world of things with the world of values, but from concentrating our attention on one of the ultimate values, and endeavouring in vain to subsume one or both of the others under it. These difficulties are troublesome, but when we understand how they arise, they need not shake our confidence in our general view of the nature of reality.

The mind which ultimately assigns values is the mind of God; but men in varying degrees can "think God's thoughts after Him." The power to do this is the reward of training and discipline. Hence the pursuit of philosophy demands a severe rule of life and a constant effort to attain self-transcendence by self-mastery.

Here we come to what, we may venture to say, is the greatest contribution which the Founder of Christianity made to the science or art of living. He taught us that the wisdom to value justly, or in other words to know truly, cannot be gained by any self-regarding scheme, whether it be crude hedonism or

the more refined forms of self-culture and the desire for individual deliverance from evil and error. It is chiefly, he taught by developing love and sympathy that we rise in the scale of being. It is not to be forgotten that science and art both emancipate us from self-regarding preoccupations; but even these pursuits may be contaminated by the wish to build for ourselves "a pyramid of existence," as Goethe said, and to stand in proud isolation on some "serene temple of the wise," from which we may watch the common herd wandering in a vain search for the "way of life." But love cannot be a conscious means to anything alien to itself. It obliges us to weigh our anchor and let ourselves go without counting the cost to ourselves. To do this, Christ taught, is to fulfil the law of our being. That this teaching is true will hardly be doubted. Its philosophical implications may be worked out differently by different thinkers. But it seems to prove at least this, that our personality cannot grow in isolation, nor by drawing all experience into itself. We can "find our soul" only by losing it—or as we say losing our hearts—to others. A study of the life and character of Goethe will convince most English readers, at any rate, that the highest genius cannot prevent a life devoted to self-culture from being, on one side, even morally repulsive.

We do not, however, exhaust the Christian meaning of love if we identify it with altruistic sentiment. Love of our neighbour is to be rooted in love of God. That is to say, our relations with other finite spirits are not direct, but are mediated by the intercourse of the soul with what is above itself. An old Church Father says, "When thou seest thy brother, thou seest thy Lord," meaning, I take it, that what we love is not our neighbour as we see and hear him, but the Christ in him. Pure judgments of value have always an universal quality; there is something superhuman about them, and we must leave what has been called the world of claims and counter-claims behind before we can reach them. It is easy, from this point of view, to understand why some thinkers put art, science, and religion above morality. They deal with the

eternal and absolute, whereas morality is bound up with the will, and with time, the form of the will. But if we regard morality as the attempt to realize goodness under the form of time, this inferiority disappears. It is only the *form* of morality which belongs to our present state; and the same limitation is apparent in our science and our art. Whether our aim is to act rightly, or to discover the truth, or to produce something beautiful, we are subject to the laws of becoming, and perhaps we never wholly attain.

The attempt to rank the moral will on a lower plane than science and the æsthetic faculty is to be deprecated, because it is in conscience that we have the clearest affirmation of an absolute Good. The moral verdict may be mistaken, but its claim is absolute. We have in fact a perfectly plain and decided testimony, in the constitution of the mind itself, that the Good, the True, and the Beautiful are what they are unconditionally. This is what is meant by belief in God; without this conviction there can, properly speaking, be no theism. The existence of God is a postulate rigorously involved in the nature of valuation, as soon as we rise above merely individual or historical relativity. And it is needless to say that moral goodness, in a higher form, is an essential attribute of what we mean by God. Morality, no doubt, always speaks in the imperative, and we may think that the grammar of a timeless world would have no use for this mood; but the moral will that has attained its end would not be thereby extinguished; it would pass into a higher form.

One difficulty in finding a place for ethical volition in the eternal world is that right always implies wrong, and philosophers of all schools except the Manichean are embarrassed by negative values. These, as we have said, are not confined to morality; the æsthetic faculty finds ugliness a very positive thing. But it is for the moralist that evil holds the largest place, and presents the most serious problems. Indeed, the problem of evil is mainly created by the demands of the ethical sense. Science passes no such judgments, and for religion the victory of good is already assured. Without

spending more time on a problem which by common consent is incapable of being completely solved, we may reflect that in such a world as ours there must be real tension, and that the difficulty of believing that some souls are lost and some divine purposes frustrated is not nearly so great for the theist as for those thinkers who believe that the life of God himself is involved in the cosmic process. It may well be that the pantheist is logically obliged to deny the existence of evil; for the theist there seems to be no such necessity. Evil is as real as good, in a world where souls are on their probation, and the conflict is something much more tragic than a long-distance race, in which all at last reach the goal in a state of healthy fatigue.

It remains to consider the closely-allied questions of the reality of the individual and of the immortality of the soul.

The religious and philosophical belief in immortality seems to be not historically continuous with primitive animism, but to have arisen from different sources. Primitive animism, however it began, asserts merely the survival in time of the disembodied spirit, whereas the more refined belief in immortality is supported by theories about the nature of soul-substance, which it declares to be intrinsically indiscerptible, or about the nature of God, who, being good, cannot be supposed to decree the breaking-up of the noblest of his creations.

In Plato the doctrine of a soul-substance, inherently immortal, is brought forward. The soul, he taught, is the real person; "it makes us what we are." The soul belongs to the invisible world of changeless reality; it was never born and will never die; the body is part of the unreal world of becoming, which is not the object of true knowledge. The soul, however, has an insecure footing in the spiritual world; it only "partakes" in the higher mode of existence, into which it can "ascend in heart and mind and therein continually dwell," as our collect has it. Thus the soul may be in heaven while the body is on earth, and this possibility is more prized both by Plato and Aristotle than any hope of a merely future life. The ancients considered it almost a truism that what-

ever comes into existence must pass out of it; it is only the highest part of our nature, which was not born with us, which can find itself at home in an eternal world. But Plato is unwilling to give up the hope of a more strictly personal survival; he wraps it up in myths, which means that he regarded the belief as an act of faith. Aristotle taught that the Active Reason survives death. One might infer that this is an impersonal immortality, as the Arabian Aristotelians of the Middle Ages taught; but we cannot tell whether Aristotle would have approved this development of his thought. It must be admitted that Plato's proofs of immortality are not cogent, and that his strongest arguments point rather to the contemplation of the eternal ideas than to future states of existence. But he is strong in the truly religious basis of his faith, which cares little for rewards and punishments, holding with Spinoza that *Beatitudo non est virtutis præmium sed ipsa virtus*. Plotinus was to say the same: "If any man seeks in the good life anything beyond itself, it is not the good life that he is seeking." The substitution of a gross pleasure-and-pain compensation doctrine for this noble faith has been punished, in Christian times, by a decay of the belief in human immortality. It has withered because its roots have been cut.

The same external conception of retribution has infected the Asiatic doctrine of Karma, which has its noble elements, and is even held by some western thinkers. According to this theory nothing survives death but the bare form of identity, and the liabilities which have been contracted in the past life. These liabilities have to be discharged; and apparently the individual who is reincarnated for the purpose believes that he discharges them in person, though since there is an entire discontinuity in consciousness, it is not easy to see how identity can be asserted. The conviction that all misdeeds must be strictly atoned for has no doubt an ethical value, and the unfortunate may console themselves by thinking that their sufferings have a redemptive power. The belief in heredity, especially in its unscientific form, which teaches that we injure

our children's characters by giving way to temptation, makes much the same appeal as the doctrine of Karma. There is also the prospect of at last attaining eternal rest in the bosom of the Eternal, which is as attractive to the eastern mind as it is repugnant to the active and adventurous western. But the crudity of the retribution, as pictured in popular views of metempsychosis, robs the doctrine of much of its nobler aspect.

The attacks made on the theory of a permanent and indiscerptible soul-substance seem to me to proceed from the materialistic associations of the word "substance" in modern times. A "substance," in this connection, means only a permanent unit as a subject of experience; the doctrine asserts nothing more than that the higher self belongs to the eternal world.

Nor is this the only instance in which we are often misled by words. The antithesis of "personal" and "impersonal" immortality must not be left unexamined. To speak of "an impersonal system of thought" seems to me to be nonsense. A person can only be defined as one who thinks; a God who thinks is not impersonal. When a man asks whether he will preserve his personality after death, or be taken back into "the Great All," what really disturbs him is the doubt whether what lives in the eternal world will be *his* soul, or a soul over which his ownership has lapsed. But what is the meaning of "my soul"? Who is the owner of this precious bit of property? We in Europe are so obsessed by the idea of proprietorship that we do not see the absurdity of such questions. We ought, however, at least to realize their unworthiness. Until we have put behind us all individual claims, until we have understood what Christ meant by being willing to lose our souls, we are not yet in a position to discuss the religious problem of immortality.

Nevertheless, I think we are right to protest against the doctrine of "absorption in the Absolute." Nothing can shake our conviction that we exist as persons, and that our existence as persons has a real value. A personality dissolved into its component elements, if it has component elements, would lose

the value which we believe that its Creator recognizes in it, and we believe that no real values are ever extinguished. The difficulty is that our personalities seem to belong to the world of becoming ; and the notion of a newly-created being becoming immortal is as difficult as that of a string which has only one end. The notion that immortality consists in an endless succession of moments, beginning at a certain point of time and never terminating, is surely as untenable as the Greeks held it to be. The notion of admission into a state of timeless existence is less difficult. The medieval German mystics used to say in ecstasy, " Ich bin entworden," which meant much the same as the welcome given in the next world to the Orphic saint : " Happy and blessed one, thou shalt be a god instead of a mortal." The difficulty is much reduced, though not removed, if we banish the notion of survival in time, and picture the beatified soul as raised to a higher plane of being. We need not then trouble ourselves with the question whether the population of the world of spirits is capable of indefinite increase. What I think we have a right to assert is that in so far as our personal life has a value in God's sight, its distinctness is preserved, though we are glad to reflect that in heaven there are no more separations between spirits who are akin to each other.

But even so, I doubt whether we ought to lay stress on what Höffding calls the " conservation of values " in eternity. Conservation is a word which belongs to the time-series. Values are constantly flowing forth from an inexhaustible source ; we need not think of them being stored up. In all these discussions, phrases and ideas which belong only to the time-succession keep on intruding into our attempts to picture the conditions of eternal existence.

Where our treasure is, there will our hearts be also. Our true personality has for its content the eternal values, and this personality, we may say paradoxically, is not ours to start with. Our place in the eternal order has to be striven for and won. There may be, as some philosophers and mystics have believed, an impeccable and quasi-divine element in each soul,

which takes no part in the misdeeds of the empirical "person"; if so, our salvation consists in "uniting ourselves with the unchangeable and abiding, that the soul also may abide unchangeable." These are the words of Spinoza, whose ethics are based on the belief in "an eternal part of ourselves," to which the whole character should be made to conform.

This is, I think, the foundation of the religious belief in immortality. Very much of the current discussions on the subject betrays a frame of mind which is anything rather than religious. It appeals to wilful and selfish hopes which carry with them no guarantee that they will be gratified. In proportion as the hope of eternal life is displaced by a mere desire for survival in time, we may be sure that the less worthy motives predominate over the religious aspiration. The claim for even-handed justice at God's hands, natural as it is, proves that the necessary act of renunciation, which opens the door to a true faith in immortality, has not been made. It is a hard saying, but we do not know that distributive justice will ever be rendered. The great heroes have never demanded justice for themselves, and have certainly not received it. We cannot remember too often Spinoza's famous words about the reward of virtue, quoted above.

The philosophical arguments for eternal life are very much stronger than those for survival in time, and we need not regret that it is so. The Asiatic, as we have seen, does not even wish to survive, and a European of high character, if he wishes it, hopes mainly that a further chance may be given him of perfecting his personality, a purpose for which he may think that a single human life is inadequate. Some have argued that this hope is so reasonable that a good God could not refuse it. Many add that the wicked must be subjected to penitential discipline, in order that at the last all may come to the knowledge of God and win salvation. This is an amiable wish, which has been fortified by the horrible pictures which Christian orthodoxy, following here as in many other ways the mythical teaching of the Orphics and Platonists,

has drawn of the fate of the lost. There is no reason to suppose that the wicked will be resuscitated with bodies to be tortured—that, as Origen banteringly suggests, teeth will be provided for the damned to gnash with. But on the other hand we have no right to assume that a second and third probation will be given to those who have lived one life on earth, still less that, however badly we use our opportunities here, all will come right for us in the end. There is much confusion of thought, and much flabby sentiment, about punishment. Punishment is essentially vindictive; reformatory treatment, however incidentally unpleasant, is not punishment at all. A religion without real fear is likely to be merely unfruitful emotion. It is at any rate not Christian. Nevertheless, to the genuinely religious mind, future rewards and punishments hold a very subordinate place.

The desire for survival is sometimes connected with a cowardly fear of death. Perhaps most of us are more afraid of dying than of being dead, and agree with the Frenchman who said, "Pour être mort, malheureusement il faut mourir." But there are some who shrink terribly from the thought of resigning "this pleasing anxious being." They could make their own the ignoble prayer of Maecenas, which has been preserved from oblivion by its craven sentiment:

> Debilem facito manu, Debilem pede, coxa;
> Tuber adstrue gibberum, Lubricos quate dentes;
> Vita dum superest, bene est;
> Hanc mihi vel acuta Si sedeam cruce, sustine.

But surely the desire to go on living anyhow is a very poor thing. Rather, like Lewis Nettleship, we must train ourselves to believe that "death does not count." The thought of it is, as Spinoza taught us, an unworthy preoccupation for a free man. Nature has done her best to sting us out of materialism by cruelly outraging our dignity and our tender feelings in the circumstances with which she has surrounded birth and death. We count it bad taste to think or speak of the genesis of human lives; and that which follows death is so

revolting that we must hide the visible relics of a beloved life out of our sight before decay's effacing fingers have set their mark upon them. This is either the work of a devil, or of a good God who wishes us, at such times, to look, not on the things seen, which are temporal, but at the things not seen, which are eternal.

It will be seen that I have gone back to the ancient idea of philosophy, as not merely an intellectual pursuit, but a kind of priesthood, requiring a consecration of the whole life to a quest of the Holy Grail. It may be objected that this is to undervalue the exceptional intellectual gifts which are required in the metaphysician; that religious or ethical prejudices have more often injured a philosophical system than helped it; and that the great philosophers in history, though for the most part men of high character, have not all been saints or ascetics. But I am far from denying that great gifts are necessary in metaphysical speculation. And I am equally far from desiring that a philosopher should start with prejudices, either religious or moral; I only desire that he should start with an exalted faith, and that he should follow the gleam in the expectation of finding something better than a neat logical synthesis. And thirdly, I do not deny that a very unspiritual man might write a good book on philosophy. A physician may prescribe successfully for a disease of which he is himself dying; a priest may preach eloquently to others, though he is himself a castaway; and an able man may master a speculative system in which he has no vital interest. But the leaders of philosophy have been, on the whole, something more than respectable citizens. Some of them have been prophets and seers; and those who have lived the sheltered life of university professors have made a living sacrifice of their intellects to a noble study. It is, I think, a beneficent law of the spiritual life that really disinterested specialization does not narrow or warp the mind and character as we might have expected. Any devotion to the cause of truth ennobles the whole man. I do not think that the biographies of great philosophers can be used to refute

the ancient opinion that the call to philosophy is a call to a consecrated life.

> Quid caelo dabimus? Quantum est, quo veneat omne?
> Impendendus homo est, deus esse ut possit in ipso.

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HOW OUR MINDS MAY GO BEYOND THEMSELVES IN THEIR KNOWING

By JOHN LAIRD

Born 1887; M.A. Edinburgh and Cambridge; Professor of Philosophy, North of Ireland University, Belfast.

BIOGRAPHICAL

I BEGAN the study of philosophy in the year 1905, during my second session at Edinburgh University. From the first, I think, I found the subject more fascinating than any other, and I have continued to occupy myself with it ever since.

In my view, this interest is the most natural thing in the world. Philosophy is so attractive a lodestone that I do not see how anyone can escape from it. Perhaps, however, I had less chance of escaping than some others have, on account of the circumstances of my upbringing. The Scottish clergy, as everyone knows, have always held scholarship in the highest esteem; and I was the son, and the grandson, and the great-grandson of the manse. From my earliest youth, indeed, I had been led to believe that learning is precious and untarnishable, second only to piety, and very much easier to achieve. For the rest, I was country-bred, and therefore, perhaps, more meditative than many. I had books to read, and the name of philosophy may have appealed to my sentiment from an accident of space. I was born in Kincardineshire, in the parish next to Reid's birthplace, and I noted the fact in my dreams.

It would be rash of me, and perhaps worse, to try to explain in a phrase or two what I took to be the distinctive quality of the curriculum at Edinburgh, but the dominant note which seems to resound in my memory is a certain ideal of fine discernment and of scholarly accuracy in the interpretation of the greatest philosophers. We were shown, I believe, how to look for the germs as well as for the ripening of profound ideas, and yet to avoid the grosser bondage of time; for we listened, as it were, to a dialogue still in progress, and possessing a certain ubiquity in the centuries. For myself I would gladly have more of this temper.

From Edinburgh I went to Cambridge and began all over again. I changed my point of view, I suppose, but I cannot tell how much of the change was due to Cambridge, how much to an alteration in myself. In any case, I do not wish to suggest a contrast. For my own peculiar, however, I came to prefer dialectic to history, more special to broader enquiries, a grain of proof to a bushel of

sweeping suggestion; and I did my best to be as candid as I could. It would have been singular, indeed, if I had not. Cambridge in these days was a very hopeful community, and magnificently confident in the efficacy of hard thinking, but we followed an argument in the spirit of adventure, and not with the object of making for port. In our view, nothing was final but the rules of sound navigation; and everyone seemed ready to be argued out of his fundamental convictions of the term before.

I have dwelt upon these undergraduate days because I have tried to carry the spirit of this early discipline with me in all my subsequent reflections upon philosophical questions, and because I cannot think of any other influence at all comparable to it. Cumulatively, I hope, I have learnt more from the teaching of philosophy than from my apprenticeship; but this I take to be the continuation of a process already begun, although revised and sharpened in these years of active discussion with my students and my colleagues in St. Andrews, Nova Scotia, and Northern Ireland. Philosophically speaking, too, I count myself fortunate in belonging to an age in which philosophy is very much alive, and in which anyone who attempts to put his ideas into print is sure of searching and illuminating criticism from a host of competent quarters. I should like to think of myself, however, as one who had attempted persistently to make use of the exceptional opportunities with which he began.

I am aware, of course, that professional philosophers are suspect in certain quarters, and I should be the last to deny that philosophy is too big a thing for any school; or that every profession has its professional fences, although philosophy should have none. I cannot think, however, that anyone is entitled to infer from these truisms that philosophy, as it is understood in the schools, is wholly or principally an academic game whose rules are made by the dons. I know a great many dons, and I can think of none to whom this censure applies. Indeed, I think it unreasonable to expect proficiency in these or in any other subjects without a prolonged and special training, or to suppose that this training is the worse because those who are responsible for it give their lives to the work. And there is nowhere, I think, where thought is freer than in our universities, less strained or muscle-bound, more sensible of the spaciousness that exactitude brings.

That is why I have made this account of myself impenitently academic, yielding to the temptation of describing myself as I should like myself to be.

I shall try, now, to present a thesis:

HOW OUR MINDS MAY GO BEYOND THEMSELVES IN THEIR KNOWING

THE theory of knowledge, I think, is only a department of philosophy, and it is not the most considerable department. Nothing but a theory of knowledge, however, could conceivably vindicate this assertion, and the circumstance accounts for the form of my contentions, as well as for the scope of them.

I propose, then, to give a short abstract chronicle of certain opinions which I hold concerning the mind, its office in knowing, and the things with which it has to do. I count myself a realist in these matters, but I do not think I am a very new one, and I do not covet the label. Indeed, I am accustomed to proceed in a very old-fangled way, and to ask (as I conceive) the very same questions as Locke or Hume. With Locke I wish to consider " the discerning faculties of a man as they are employed about the objects which they have to do with," and I am anxious to use what Hume called the " experimental method "—a method, that is to say, which is critical and descriptive, but avoids conjecture so far as it may.

It is arguable, I know, that time has antiquated these antiquities and has shown them to be naked and perverse. Is Dorset Court to be preferred to Königsberg? Shall Nuremberg give place to La Flèche in Anjou? These are pertinent questions, certainly, and I hope to return to them in the sequel. Meanwhile, I beg leave to continue.

Locke's account of " ideas," to be sure, is a thorny topic, very troublesome in its exegesis. If his " ideas " had been *only* " the immediate objects of the understanding when a man thinks," no one would have thought him an innovator or a

contentious person. In fact, however, he also maintained that "ideas" are "phantasms" or "species"—apparitions or visibilities, that is to say, at least in their first intention. This is half way to Hume's assertion that it is "pretty obvious of itself that nothing is ever really present with the mind but its perceptions," and Hume, quite plainly, has said something disputable, if not subversive, when he goes on to explain that "we never really advance a step beyond ourselves, nor can conceive any kind of existence but those perceptions which have appear'd in that narrow compass."

What I wish to maintain, on the contrary, is that, in point of simple description, we *always* advance a step beyond ourselves (except in the case of introspection) whenever we are aware *of* anything, and that, although we may sometimes encounter mere apparitions, it is not at all necessary that we should. In pursuing this argument I shall begin, in the received fashion, with an account of the senses and of memory.

Locke and Hume, as I think, were indisputably right when they denied that the philosophy of sense acquaintance can be borrowed from physics or physiology. Any knowledge we attain concerning *any* physical object is derived from sense observation, and the hand or the eye or any other organ of sense is just as physical an object as a mountain or an archipelago. They were right, too, when they said that sensory phenomena were *objects*. We look *at* them, not *with* them; and Locke, I think, was right when he said that these objects were objects of the understanding, Hume wrong when he took them to be objects of nothing at all. They are objects of the understanding, however, only in the sense that they come before it; and therefore we step beyond the process of apprehending whenever we observe them. This step, furthermore, is so decisive that it leaves us without the smallest ground for supposing that these objects, however direct and immediate they may be, have any similitude whatsoever to the process which apprehends them. Quite simply, they are objects which the mind apprehends, and they need not be mental, on this account, or have any mental property.

The point is cardinal, not so much for what it determines, as for what it leaves open. It cannot determine, one way or the other, whether this object is public or private, an abiding thing or a momentary phantasma, an isolated unit or a glowing spark in a tenebrous, looming immensity. It does not preclude us, even, from believing that sensory fact may be mental for some *other* reason than the mere fact that it is apprehended. In a word, it is permissive, leaving the objects to declare themselves as they list. To quote Hume against himself: "As to the *independency* of our perceptions on ourselves, this can never be an object of the senses, but any opinion we form concerning it must be deriv'd from experience and observation."

Experience and observation, it is plain, have to walk very delicately here, and I have no space for more than the most general of reflexions. "Philosophy," according to Hume, "informs us that every thing, which appears to the mind, is nothing but a perception, and is interrupted, and dependent on the mind, whereas the vulgar confound perceptions and objects, and attribute a distinct continu'd existence to the very things they feel or see." This confusion, I believe, is the philosopher's, not the mob's. "That table, which just now appears to me, is only a perception, and all its qualities are qualities of a perception." Our philosopher, surely, is quite precisely wrong. The table, indeed, appears to me "just now," but it is not therefore a mere appearance, still less an appearance which only exists "just now"; and its qualities may or may not be qualities of the "perception." Certainly we believe the table to be square when we see it to be so; but if our "perceptions" fluctuate (as they always do when we gaze at anything) we do not, therefore, perceive a fluctuating table.

These "perceptions," to be brief, are *glimpses* of the table, and the table itself is not a glimpse. It is that which reveals itself (to us, for the most part, discontinuously) in certain limited phases and features, but we deceive ourselves causelessly if we ascribe the limitations or the interruptions in our selecting to the continuing entities from which these selections are made. Philosophers have strangely misconceived this palpable, governing

consideration, and the vulgar have not ; but it is the philosophers (and they only) who have addressed themselves seriously to the still more fundamental problem of determining *which* of the phases that we encounter in sense are, in fact, *compossible* features of the same continuing thing. It is possible, I believe, to save all the phases which our senses select, except the illusory ones (and I do not see why our senses should be considered infallible) ; but this possibility, in its turn, is due to the liberating insight into space, and time, and matter, which philosophy has achieved so recently, and the spur to this achievement was the tardy recognition on the part of the physical sciences that physics itself was bound to answer those very questions which psychologists and philosophers had continued to ask with such unwavering persistence.

I believe, then, that we really do perceive tables and trees and other such things. Quite manifestly, however, we do not perceive them in isolation. This table, with its relatively persisting contour and its reliable domestic uses, is a partner with the floor, and the air, and the rest of the world. Perception, to be sure, does not acquaint us with a worldful of things, directly and all at once. On the contrary, if the metonymy be pardoned, it confines us to an eyeful or an earful of their phases. Nevertheless, anything that we perceive is perceived within a horizon. Its grosser components, its contiguous partners, its immediate surroundings and connexions, are given along with it, not always, indeed, with the same clearness of outline (since the fringe of the horizon, as Grote remarked, is " a mist and not a crowd "), but given notwithstanding. The governing consideration that entered before enters here also. This sensory expanse with its faint penumbra, small though it be in comparison with the countenance of all Nature, and calling for enlargement, refining and endless interpretation, is yet a selection within Nature, and reveals itself to be so when experience and observation set about their proper work. What is more, molecules and ions, in the roots of them, are extracted from perceptible Nature, not foisted upon it, or constrained to borrow their credentials from an imperceptible dominion. Nature, in short, fulfils and

does not supplant what our senses permit us to encounter. Things do not cease to be things because they belong to a world. They may not surrender themselves; and we, for our part, may not surrender what we find in them.

The evidence for this continuance of things is due, of course, to the memory as much as to the senses. Very often it seems to be held that memory is chained to the present, although it contains (unaccountably) an unverifiable reference to the past. I reverse this reasoning. By universal admission the "specious" (or directly apprehensible) present is a stretch, not an instant, of passage, and within this stretch part is earlier and part later. Consequently, at some instant in every specious present, we directly experience something which occurred *before* that instant. Our direct acquaintance with former existence, therefore, so far from being impossible, occurs as often as the specious present occurs. Certainly this "primary" memory (as it is called) has, in our case, a very brief span. Even when the attention is firmly engaged, we cannot usually grasp more than a fitful endurance in a single glance. In exceptional cases, however, the clock may show that our specious present is not so very short, and there is no contradiction in supposing that God's specious present might compass the entire history of his universe. If so, the creeping passage of æons would literally be his eternal *now*, but the order of earlier and later within it would not be altered by a hair's breadth either relatively or absolutely.

These possibilities, perhaps, have only a speculative interest for mankind. The human *now* is not eternal, and much of a man's acquaintance with former things in their former condition is "secondary," or interrupted. Secondary memory, however, is only a vista of *broken* time where peaks take the place of a plain. It is not a new way of remembering, essentially distinct from primary. Therefore it, too, is direct acquaintance with the past; for distance in time, like distance in space, leaves room for vision.

The objects of memory, to speak in other words, are *former* events, not *contemporary* "memory images," and it may be noted in passing that the whole theory of knowledge has been

fruitlessly perplexed by misconceiving the date and the place of images, as well as by confounding imagery with conception. Images proper, the images of a dreamer or day-dreamer, while they are spatial and temporal, are not either here or there, now or then. As Coleridge said, they are "emancipated from the *order* of time and space." To accept them otherwise is to embrace illusion. Certainly images really are imaged, but that is not to the point, and it is easy to exaggerate the importance of their office in other respects. Imageless apprehension, we are often told, is a psychological nullity, and it is true that images usually accompany thinking, even if unobtrusively. When they do so, however, they are only *illustrations* at the best. They are not the intent, of our cogitations, and they help or encumber our thinking precisely as other illustrations do. To think of justice is not to have an image of scales.

I have expressed this account of the senses in terms of judgment; but perceiving is not judging. Hume's analysis gapes visibly in this matter. While he distinguishes perception from certain inferences, and inquires into the sentiment of conviction, he maintains that judgment "taken in a proper light" is only a mode of simple conception. Eager to dispel the mirage of abstract imagery, he leaves himself without the rudiments of a theory of logical predicates. And every predicate is a universal. Some predicates, it is true, are less determinate than others. Colour is less determinate than red, red than this shade of red. Yet this shade of red is universal, too. Conceivably, indeed, it might be found only once in Nature, or never at all, but it has an œcumenical potency of the blood. Being a predicate, it is fitted to qualify an infinity of substantives.

The simplest *judgment* of sense—"this is red" or "this is surrounded by green"—contains a universal constituent, either adjectival or relational. What we perceive, however, is always and simply particular. Perception and judgments of perception, therefore, do not coincide, but only correspond; yet there is no occasion to infer that this correspondence is between "thought" and "things." It is a correspondence between thought-selections and sense-selections. We perceive brown

things and overlapping things. Of these same things we judge that they are brown, or that there is a relation of enclosure between them. There is no more and no less of mentality in the one case than in the other. There is only a different exercise of the mind faced with a different dimension in the things. This holds of all the characteristics and relationships pertaining to these objects. Propositions (or that which is judged) constrain and confront us like any other objects. With judicial eyes, we look *at* them, not *with* them, and they are found, not made. It is *utterance*—the gesture that expresses the proposition—that is our product and our making.

In perception, then, we discern the phases and the setting of perceptible things; in judgments of perception we discern their relations and their character. This capacity of our judging extends to all such properties, how general soever they may be, and even when they are categories and *à priori*. The "forms of thought," indeed, are the charts of thought's province, and therefore include the most pervasive properties of perceptible things. Judgment, however, is emancipated from many of the limitations of percipience. In a series of connected judgments (in other words, by inference) we are able to pursue these characters and connexions far beyond the domicile where first we encounter them. What is more, we are able to consider them at second remove—apart, that is to say, from any particular application, and, perhaps, indeed, quite alone.

This raises a problem. Predicates like "red," or relations like "enclosure," would seem, literally taken, to be meaningless except when applied to perceptible things. Predicates like "numerable," however, or the relation of "otherness" seem to have no peculiar connexion with perceptible existence. They apply to any thinkable entity, and although the adjective "numerical," being but an adjective, must certainly apply to something, it does not follow that the substantive "number" is but the child and vassal of this adjective. "Numbers" indeed may be primary substantives de-substantiated into adjectives, not secondarily substantiated from the same. I take this view to be the true one. Neither logic nor pure mathematics

(its corollary) seems to need the smallest reference to perceptible characters in order to ensure its validity, and although both *may* be applied to perceptible fact, there is no need to impugn their proper autonomy on this account. It may be doubted, indeed, whether anyone would dream of doing so if he did not tacitly assume that all existence is perceptible existence. This concealed premiss, however, seems a piece of parochial effrontery. *Non sufficit orbis.* As Spinoza said, there may be many attributes besides thought and extension. There may also be legions of things which we do not sense, or fancy, or conceive.

Nevertheless, if these hidden things were made plain, they would show a logical structure. Lacking the appropriate empirical instruction, we may not know, indeed, what their character is, or how " the same " and " the other " commingle within them, yet we know that these must enter and enter consistently. Intellect, in a word—our human intellect—has no inherent ineptitude. It is *we* who are frail, and not our knowledge, we who are inadvertent and desponding; and however sincerely we may long for some profounder, more synoptic, more delectable dimension of knowing, there is neither sense nor piety in forgetting our responsibilities through a palsy of timid wondering. There is more of reverence in acceptance than in amazement, and it is as foolish to ask how knowing can know, as to inquire how being is made. It might be otherwise, indeed, if we had to match our stature with the universe or compress the firmament within the domes of our skulls; but we are not asked to attempt these absurdities.

Accepting knowledge, then, we accept something which is insatiable (in principle) and invincible, something which is not content to ask for bread carefully prepared and made conformable to it, but is itself conformable to all things, even to the stones of earth and to the choir of heaven. In this (as I think) the Critical Philosophy was not critical enough. If we could visit the great ones in Valhalla, we should all, I suppose, seek Kant first among the moderns, and present our humble duty to the little, peerless, *spieszbürgerlich* iconcolast from Königsberg; yet we should honour him chiefly for the incomparable fertility

of his genius, and most lesser philosophers, so far as I know, are eager to indicate their dissent from much that he says. I propose, then (briefly), to follow this prevalent fashion. The senses, I have maintained, so far from receiving a formless manifold, are directly acquainted with events in the physical world, and their weakness, great as it is, does not prevent them from tracing the most salient partnerships and continuities within the world. Therefore perception, apart from judgment, is not blind. It is not *science*, however, and *natural* science, as Kant maintained, needs the united operation of thought and sense. This union, however, always reveals properties and connexions which belong to Nature herself. It is not an imported synthesis, and it is found as clearly in the simplest judgments of perception as in the most general propositions of physics. Mind is not a mesh, or a mantle, or an atmosphere which encompasses all that is knowable. To suppose so is to carry the fallacy of representative perception into the province of judgment and inference. What Kant called synthesis, in a word, is really the connexion of differents; and synthesis *à priori* consists of the most general connexions which belong to all being as such. Through his recognition of this fundamental verity, in spite of the form in which he stated it, Kant began to bridge the lacunæ of Leibniz's logic and overcame the forlorn and affrighting isolation of Hume's fundamental plaint that "the mind never perceives any real connexion among distinct existences." This verity, however, is not confined to the science of *physical* Nature, and it need not borrow its meaning or its use from the forms of intuition. There is no *physical* science, it is true, of God, or of the soul, or of logic itself, but there may be *knowledge* notwithstanding—knowledge that is neither vain nor void.

There is a striking analogy between Hume's attitude towards Locke, and Hegel's towards Kant. The "new scene of thought" which "transported Hume beyond measure" when he was a lad of eighteen, and led him (after some years of exhausting emotions) to drive an eager, immortal quill from those low coteaux by that Angevin plain, was his burning conviction that

" ideas and impressions " were the sole realities in the light of the new philosophy. Bathing in the stream of presentations, he found, as he believed, that the scales had fallen from his eyes. The rest were not even shadows. After the same fashion (despite most obvious differences) Hegel immersed himself in the Notion and its rhythm. There was nothing beyond or outside it. It had laid itself up in heaven, and begotten itself and the world. The objects of thought, as we call them, are its wards and chattels—" reduplications, inspissations and crassations," as a commentator has said. The Notion is not an instrument, like teeth or jaws, biting into some other than itself. It is the sower and the reaper of its own manifestations, and the senses are its ideographs. In the language of our own days, all the objects of thought are thoughts *themselves*—ideal contents which are self-developing and self-maintaining. To know them, therefore, is to become part of *their* self-knowing ; and it is no matter, apparently, if this self-deployment is unchanging " in the end," or if this self-maintenance, being timeless, cannot properly be said to endure.

I am anxious to defend the contrary opinion. Things (as I cannot but believe) need not be thoughts at all. Indeed, they never are, unless they are minds. If thought, as Hegel says, is " the universal substance of what is spiritual," it is therefore *not* (as he also says) " the constitutive substance of external things," or of timeless ones either. This is the thunder of equivocation. There should be no question of my activity becoming universal activity, of the way in which I, a puny creature of passage, may be caught up into eternity, or, conversely, of the manner in which infinity can overwhelm and annul the original sin of my finitude. My thinking is always a part of myself, a finite part of a finite economy ; it is always a process and brief. Yet it may be directed towards that which is timeless, universal and infinite, without the palest reflection of inconsistency. There is neither identity, indeed, nor similitude between my mental processes and that with which they may be concerned ; and so it is useless to call upon Absolute Mentality to deliver the finite mind from an imaginary sickness.

It would be otherwise, certainly, if our acquaintance with things were a species of private suffering; for then there would at least be a magnificent excuse for acknowledging this Leviathan of the Notion who beholdeth all high things, and is a king over all the children of pride. In fact, however, there is no such implication, and Leviathan himself would be humbled, not exalted, if he beheld nothing but his own image.

I must try, now, to explain what I mean by the finite mind.

It is a fact of biology, as much and as little mysterious as any other biological happening, that vitality tends to become sensitive in certain species, and that this sensitivity is useful on the whole. On the other hand, in *homo sapiens* at any rate, these serviceable mental functions forget their servitude and assume the mastery. Life is pursued for their sakes, not they for life's, and their direct biological utility is often of little moment. Those of us, therefore, who are concerned with mind rather than with life, with *l'esprit* rather than with *l'âme*, cannot be content with biological generalities. Granting that our minds, seen from one important angle, are the tools and the armour of a breathing body, their intrinsic character still remains to be examined, and the scope of their excellence to be discussed. They are servile, indeed, to their nativities. They tremble at a vapour or a drop of fluid. They are the jest, and the riddle of the world as well as its glory. Yet it is neither inconceivable, nor even, perhaps, unlikely, that they are capable of discarnate existence, and if this be life of a kind, the study of it, to say the least, is an odd sort of biology.

Turning, then, to the mind itself, we find in it a troop and throng of experiences, each with its distinctive character—pains and pleasures, hopes and fears, sentiments, resolves, beliefs and questionings. The evidence here is derived from introspection, and from inferences based on it. It is necessary, however, to explain and to defend this statement, since it has been ardently and persistently disputed. Indeed, there is little agreement or none between Locke's description of the "notice which the mind takes of its own operations," and, let us say,

Mr. Alexander's account of " enjoyment," or of Malebranche's shy and divided witness, the *sentiment intérieur*.

For reasons which have already appeared, I regard sensations and images as beyond the jurisdiction of introspection. They do not seem to me to be mental; and this contention, if it is sound, also applies to organic or internal *sensa*. The aching contour of a swollen joint seems to me as physical as its heat, and its heat as little mental as the warmth of a stove. Introspection, then, is not literally an " internal sense," but as Locke says, " though it be not sense, yet it is very like it," for it is *observation* of those mental events which we call passions, resolves, and cogitations—an inspection of their *being*, not an inference *concerning* them.

It is here that philosophers diverge, and in the most radical fashion. According to certain of them, we *know* what we are because we *are* what we are; according to others we *never* know what we are, for precisely the same reason. The first of these views seems manifestly false—a confusion in itself and contrary to the plainest experience. On the other hand, the alleged impossibility of self-observation or self-acquaintance seems equally mistaken. Certainly, our cognitive processes, to choose the most difficult case, are, in their usual exercise, processes *with* which (not *at* which) we look; and none of them, perhaps, can look at itself. It does not follow, however, that *another* (introspective) look cannot be directed towards this process of looking, or that both these processes, the original glance and the introspective, do not belong to one and the same mind. Even " awareness of awareness," then, is not impossible, and this conclusion is consoling, since if anything *seems* to occur, introspection does. What is there except observation to acquaint us with the difference between pleasure and pain, or between belief and repugnance? Have we to infer their existence and their differences, like some dark unnoticeable planet, from the perturbations of something else? Is the whole of our mentality an unverifiable conjecture?

In short, the stream of our consciousness can be observed; and it can be observed, to all seeming, with very passable

accuracy in its principal outlines. Keeping to observation, then, we find that the stream flows in a personal form. These hopes, and desires, and the rest, are neither random nor isolable, but combine in their existence and are someone's consciousness. This continuing, personal self, it is true, like other continuing things, cannot be observed altogether, but only in patches; yet the patches reveal its pattern and its texture. This mode of observing, indeed, like the others, seems to convey all that can properly be meant by substantial existence. A substance, I believe, is always, quite simply, a connected, persisting unity of existent processes, each requiring and supporting the others; and the personal unity of mental processes is just the substance which we call the "I." It is Peter's hopes that have been deferred if Peter's heart is sick. Those who maintain, however, that wherever such a union occurs there is always a *somewhat* to support and sustain it, may be allowed to involve themselves in the same logical compulsion when they think of the self.

It may be objected, firstly, that this personal unity of experiences succumbs to serious analysis; secondly, that the flow of consciousness is in fact interrupted, and so that its continuity is illusory.

The first objection would be decisive if it were true, but it does not seem to be so. It is plausible, certainly, to ask in derision *which* self persists from the cradle to the coffin, whether Saul the persecutor is really the same person as Paul the missionary, whether *fugues*, delirium, *petit mal* and "dissociated personality" do not show that the self, after all, is only a dubious legal convention. If the self *changes*, however, these arguments prove nothing at all. A self that changes must surely become different, and if the difference, in carefully selected or even in other instances, can be shown to be astonishingly abrupt, there is more confusion than logic in attempting to exploit the circumstance. "Dissociated personality" itself (if it were beyond all question) would prove, at the most, that several selves may be connected with the same body; and this, if it is singular and perhaps disquieting, is at any rate a different contention.

It is usual to meet the second objection by an appeal to the

" unconscious "—that roomy and obliging receptacle which swarms with so many denizens. From these convenient rhapsodies, clearness may presently emerge. In default of this aid, however, and even on Berkeley's extreme hypothesis that " in sleep and trances the soul *exists not*," the objection is still insufficient. If Peter and Paul asleep are nothing in earth or heaven, Peter awake is Peter, and Paul is Paul. When they exist, each is an " I " whose phases conjointly *are* the " I " and severally are phases *of* the " I."

This account of the self comes very near to Locke's, I think, despite all the differences upon the surface. Locke held, indeed, that personality is an ethical or forensic idea ; that it is terminated by conscious memory since no one is accountable unless he can consider (or remember) himself *as* himself ; and that the complex idea of personality is a " mixed mode " of an unknown *substratum* or set of *substrata*. We should say instead, I believe, that the question is not one of *substrata* but of *concreta* substance being a descriptive term and neither a metempirical " support " nor a logical essence ; that this *concretum* is just the ego ; and that all forensic ideas apply to it. Memory, I think, reveals our identity but does not constitute it, except in the sense that every self must be able to carry along with it some fundamental appreciation of its own continuance. This may be sub-conscious at times ; but I doubt if it is ever infra-conscious.

The possibility of memory, certainly, is closely connected with accountability, and Locke may have been right when he said that " in the Great Day, it may be reasonable to think, no one shall be made to answer for what he knows nothing of." Perhaps, however, it may be still more reasonable to hope that the Great Day is not a Day of Judgment at all.

It is time for me to make an end of this chronicle, and I shall end, as I began, with a statement of the contrast between these opinions and a pregnant sentence of Hume's. " There is no question of importance," Hume maintained, " whose decision is not compriz'd in the science of man ; and there is none which can be decided with any certainty before we become acquainted

with that science." The misconceptions contained in the first part of this statement, I think, give a certain limited validity to the second part. The mind, to begin its work, must be saved from the clamour of importunate friends. This is my excuse, indeed, for attempting this guardian's work and for confining so much of my attention to so small a department of philosophy as the theory of knowledge.

Certainly there is no folly more ludicrous than the folly of appointing oneself the custodian of something that is already and amply secure. Nearly everyone admits that "my representations" are not simply *mine*, but beyond this there is no agreement among the custodians. Some speak of a pre-established harmony, or of a late relenting dissonance; others explain that Thought which thinketh in me shuts things in with themselves. On all these theories, however, everything is known *sub specie mentis*; and on the boldest of them nothing exists save in its passage or repose in Mind. I have attempted, on the contrary, to explain and to defend the privilege of human and of all cognoscitive nature to explore all things, not merely itself; and although my performance has limped, its purpose needs no apology, and can do our souls no hurt. In renouncing pretensions which should never have been made the mind cannot abate one scruple of its excellence.

PRINCIPAL PUBLICATIONS

Problems of the Self. (Macmillan.) 1917.
A Study in Realism. (Cambridge University Press.) 1920.

CONSTRUCTIVE PHILOSOPHY

By J. S. MACKENZIE

Born 1860; M.A. Glasgow and Cambridge; Emeritus Professor of Philosophy University College, Cardiff.

CONSTRUCTIVE PHILOSOPHY

My philosophy, such as it is, owes most, I believe, to the teaching of Edward Caird. But I was always a somewhat recalcitrant pupil, in constant rebellion against what seemed to me his over-confident optimism. His disciple and successor, Sir Henry Jones, to whom also I owed a good deal, was even more remarkable than his master for the fervour of his convictions. Probably my own defect lies on the opposite side. Though I have never been altogether sceptical or pessimistic, yet I have always had a feeling that there were lions in my path—fundamental difficulties that have often seemed insuperable. Like Burke, I may say that *nitor in adversum* has been my motto; and the path of my advance is already strewn with wreckage. Hence I cannot regard any of my writings as containing more than the least inadequate solutions of the great problems with which they deal that I was able to discover at the time when they were produced. Yet I have never been without the hope of finding more adequate solutions, and in what follows I intend to indicate the directions in which I am looking for further light. I am only feeling my way as yet, and am very conscious that I have not so far succeeded in expressing even the truths that I think I see in a manner that can be regarded as clear and convincing. More and more, however, I find myself coming into accord with Plato (especially as interpreted by Professor Burnet); and in most of my more recent writings I have been trying to give a modern setting to some of the leading ideas of his philosophy.

My first publication was *An Introduction to Social Philosophy*. It came out in 1890, at a time when the problems of social reform had reached a somewhat acute stage; and it was an

indication that one of my chief aims was to try to contribute something, if not to the solution of these problems, at least towards the orderly and reasoned exposition of them. I was aware then, however, and subsequent reflection has more and more convinced me, that it is impossible to deal satisfactorily with these problems without a clear conception of the essential nature and aims of human life; and that such a conception cannot be attained without some real insight into the general structure of the universe that we inhabit. Accordingly I passed as speedily as I could from Social Philosophy to Ethics, and then (much more slowly) from that to Metaphysics. The views at which I had gradually arrived some seven or eight years ago are most fully set forth in my *Elements of Constructive Philosophy*; and in the present short abstract it is to that book that I intend chiefly, though not exclusively, to refer. It seems convenient to arrange the material under five headings—Theory of Knowledge, Theory of Reality, Theory of Conduct, Social Philosophy, and Philosophy of Religion.

1. *Theory of Knowledge.*—With regard to this, the view that I take is one that has been very largely affected by the study of Meinong's remarkable book *Ueber Annahmen.*[1] It may be best characterized as critical realism. By this I do not understand the doctrine that the objects that any individual apprehends exist, in the form in which he apprehends them, in some region that is completely independent of consciousness. What I mean is rather that to say that such objects are "in the mind" is a statement that can only be accepted in the sense that the mind really apprehends them; and that the question to what region they are properly to be referred awaits further consideration. They are at least not simply creations of the mind by which they are apprehended; and the conditions by which their origin, continuance and

[1] In referring specially to Meinong, I do not mean to undervalue the help that I have derived from the writings of Alexander, Moore, Russell, Lloyd Morgan and others; nor do I mean to imply that what these writers have emphasized had been altogether ignored by those who are commonly described as idealists.

disappearance are determined are not *prima facie* mental conditions. They arise, for the most part, within a spatio-temporal system, which may or may not be an independent four-dimensional physical universe, but is at least not simply the world of our own limited conscious experience; nor is it necessarily referred to some conscious experience other than our own. To what it is properly to be referred, is not a question that can be decided by purely psychological or epistemological considerations.

That this is a very mild form of realism is evident from the fact that even so extreme a form of idealism as that of Berkeley, Malebranche, or Leibniz can hardly be said to be necessarily excluded by it. For even Berkeley recognized that the world that we apprehend is somehow communicated to us in an orderly way by God, and consequently does not simply exist either in God's mind or in ours, but in some medium of intercommunication, which would seem to have at least temporal conditions of its own, not simply dependent on any of the minds between which the communication is effected. Similarly, when Malebranche maintains that we "see all things in God," he appears to mean that we see all things in a comprehensive system which is not simply the system of our own consciousness, and is also not simply the system of a divine consciousness in any sense in which that consciousness can be separated from our own, but rather is a system that is essentially accessible to both, and consequently distinguishable from both. And, when Leibniz maintains that our universe is "the best of all possible worlds," he implies that there is an objective system of possible worlds, out of which the divine mind has somehow to make a choice.

Thus, it hardly seems possible for any one to avoid being a realist in the sense that has been indicated. Every one has to recognize that there are extra-conscious conditions of our knowledge of objects; and indeed also that there are extra-conscious conditions (usually somewhat veiled by the use of the term "sub-conscious") in the conscious life of the individual subject himself. Even before the appearance of

Meinong's book, I had been led, in the teaching of Logic, to emphasize the objective significance of "Meaning"; and more recent discussions have confirmed me in this attitude, though I believe that some of the statements in my *Elements* [1] with regard to it are in need of modification, or at least of amplification. Certainly the conception of meaning is very fundamental, both in psychology and in logic.

Its significance in psychology has been well brought out by Professor Stout in his *Manual of Psychology*,[2] where the main stages in the "acquirement of meaning" are described and analysed. Psychologically, meanings may be said to be *suggested*; and the range of such suggestion is very wide, from such simple suggestions as that of a sweet taste by the sight of a lump of sugar to the elaborate suggestions that are called up by the song of a nightingale in Keats' magnificent Ode. Such meanings are primarily subjective, and may vary indefinitely with different minds. For logical purposes, on the other hand, meanings are, as far as possible, definitely fixed. The possibility of this depends upon the fact that what we call the real world has a character that, though variable, varies in definite ways that can be accurately described and communicated from one mind to another. It is, as Plato urged, the presence of universals in the world that is apprehended that enables us to give fixity to our meanings, and thus makes objective knowledge possible. It is this fact also that forms the basis for the constantly growing conviction that the world that we apprehend is an orderly system—a conviction that has become very firmly rooted in the modern mind through the application of mathematical methods to physical processes and the possibility of accurate forecasts that has in this way been established. In order to make the significance of this more apparent, reference must be made to the nature of judgment.

It is important to emphasize the objective reference in judg-

[1] See *Elements*, Book I, chap. x. Also article on "The New Realism and the Old Idealism" (*Mind*, July 1904).

[2] Second edition, pp. 91–8.

ment and to distinguish this from the subjective process of judging or believing. A judgment, rightly understood, is the expression of some relation between the things that we apprehend (which, in scholastic phrase, may be "entities" or "quiddities"), and is at least intended to hold good for every thinking being. "This sugar is sweet" conveys one meaning; "this sugar is bitter" conveys another. If the reference is the same, both as regards the physical object and the conditions of sentiency, the truth of one of these would exclude the truth of the other. But they both express intelligible meanings, which any conscious being who understands the use of the words would be able to apprehend. One of them, however, may fit the facts, as the right key fits a lock; the other, in that case, will fail to fit. To say that the meaning *corresponds* to the fact is somewhat misleading. What is "meant" *is* the fact.[1]

Belief is sometimes taken as synonymous with Judgment. But it seems better to say that belief is the subjective fact involved in the entertainment of a judgment by some thinking being.[2] The judgment, for instance, "this sugar is sweet," may be entertained by one mind and rejected by another; by a third it may be entertained in some qualified sense, as "this sugar is moderately sweet." The minds of thinking beings contain (explicitly or implicitly) extensive systems of such judgments, more or less firmly entertained; and these subjective systems may correspond more or less closely to the objective systems to which they are referred. It seems best to express this by saying that they may be more or less *correct*. In this way the correctness of a belief is distinguished

[1] *Elements*, Book I, chap. ii.

[2] *Elements*, Book I, chap. v. It must be confessed that it is difficult to express this distinction in English, because the word "judgment," by its very form, suggests the mental act of judging (i.e. believing). The German "Urtheil" is freer from this defect. $2 + 2 = 4$ is a true judgment, when rightly understood: $2 + 2 = 5$ is a false judgment; but my particular way of entertaining the former judgment may be very erroneous. The distinction that I have been trying to make still appears to me to be a sound one; but it requires much more explanation than it is possible to give in such an abstract as this.

from the truth of a judgment. Strictly taken, the judgment (when fully expressed) is either true or false; but it may be entertained by a particular mind in a form that is more or less correct. The study of judgment—i.e. of meaning—belongs to logic, that of belief to psychology; and it is confusing to mix up the two provinces.

When Logic is thus conceived as being concerned with the implications of objective meanings, its close affinity with mathematics becomes apparent—an affinity, however, that is in some danger of being exaggerated. The relation between the two subjects appears to be that, while Logic is concerned with the general problem of meaning and its implications, the various branches of mathematics are concerned with the detailed working out of the implications of particular modes of meaning. The exact significance of the results that are reached, as well as the validity of the processes that are adopted, have to be interpreted and tested by considerations that belong properly to logic.[1]

We are now led to inquire how reality is to be conceived.

2. *Theory of Reality.*—The view to which I have been led on this subject may be characterized as that of critical realism or critical idealism indifferently. It is the doctrine that the extra-conscious reality to which our conscious experience refers has to be interpreted in terms of spirit, rather than in terms of matter. The grounds for this doctrine, as I have already indicated, are not simply psychological or epistemological, but are involved in the attempt to regard the objects of our experience as constituting a systematic order. It is possible, no doubt, to question whether they form such an order at all. As rational beings, however, we can hardly help seeking for an intelligible order in the world that we apprehend; and the considerable degree of success that the special sciences yield in the establishment of such an order encourages

[1] *Elements*, Book I, chap. vi, especially pp. 104–5. Since that was written there has been much valuable work done on the borderland between logic and mathematics—notably in Dr. C. D. Broad's book on *Scientific Thought*. I still think, however, that the logical interpretation of mathematical processes is in need of further consideration

us to hope that a complete order might ultimately be discovered. Now, it appears to be at least difficult to conceive of any intelligible order that should not have intelligence at its centre. How this basis for idealism differs from a more purely epistemological basis, may be illustrated by a reference to one of the earliest statements of the Neo-realist position by one of its ablest exponents. In an article in *Mind*[1] Dr. G. E. Moore urged that cups and saucers must be regarded as having some sort of existence independent of that of conscious spirits. With this, as already noted, we may heartily agree. On the other hand, it seems clear that without self-conscious spirits it would be almost as difficult to account for the existence of cups and saucers as it would be for that of Paley's celebrated watch. The real question, in short, is not whether *any* universe might be supposed to exist without spirit, but rather whether such a universe as that which is known to us can be rationally interpreted without reference to self-conscious beings. This problem, however, belongs to the end rather than to the beginning of a philosophical construction. The more realistic aspect of experience has to be dwelt on first.

In view of what has already been urged with reference to Truth, it is not necessary to enlarge at this point on the doctrine of Degrees of Truth and Reality.[2] It must suffice to state that, just as I have been led to think that, instead of speaking of Degrees of Truth, it is better to speak of Degrees of Correctness in our beliefs, so it has seemed to me that there is a similar objection to speaking of Degrees of Reality. Instead of saying that what appears has some degree of reality, I think it better to say that every appearance is the appearance of some reality, but, being in general imperfectly apprehended, its true place in reality is not rightly discerned. It is implied in this way of speaking that reality is to be con-

[1] "The Refutation of Idealism" (Oct. 1903). See also *Elements*, Book I, chap. x, and article on "The New Realism and the Old Idealism" (*Mind*, July 1904).

[2] *Elements*, Book I, chap. viii, and article on "The Meaning of Reality" in *Mind* (Jan. 1914). It is probable that a good deal of what I have written on this subject calls for reconsideration.

ceived as a systematic whole, which cannot rightly be regarded either simply as one or simply as many, but only as a many in one. This is another way of saying that the conception of Substance tends to drop out or fall into the background. It no longer seems fitting to speak, with Spinoza, of a single substance to which everything is to be referred, or, with Leibniz, of a multitude of independent substances. Rather it must be recognized that Berkeley was successful in his attack on material substance and Hume in his attack on spiritual; but the results of these attacks are not purely negative. What they lead to is a revised version of Plato's doctrine of Forms.

Such a revised version is by no means peculiar to myself. Mainly through the influence of German idealism, as represented by Hegel and, in a more qualified form by Lotze, it has come to be realized that a true universal is of the nature of a comprehensive system, which contains or implies particularity. Colour, for instance, is not to be thought of as an abstract quality, separable from particular instances—special varieties and shades of coloration—but as a comprehensive whole within which these particulars are included. Professor Stout has done much to elucidate this way of thinking, both by his excellent Essay on Error[1] and by his more recent paper on Universals and Propositions,[2] to both of which I am greatly indebted. I have used the term "Orders" to express the systematic way in which different qualities fall into place within a comprehensive whole.[3] It must be admitted, however, that the continuity displayed in the case of colours is, to a large extent, lacking in the other sensible qualities. Even in the case of colours, if we mean by colours those that are actually apprehended, the continuity is incomplete. All existent things are finite. They are a particular

[1] In the volume on *Personal Idealism*.

[2] Published by the British Academy. I believe that the view set forth by Professor Stout in that paper is not, in any essential respect different from my own.

[3] See "Sketch of a philosophy of Order" (*Mind*, April 1913) and Note on "Universals and Orders" (April 1922); also *Elements*, Book I, chap. vii.

selection out of a conceivable infinity. This is a point that will be referred to later.

This way of thinking seems to help a good deal towards the understanding of relations. Somewhat unnecessary difficulties appear to me to have been raised about these, chiefly owing to the tendency to regard things as independent substances or entities prior to their relations to one another. From the point of view that is here adopted, the priority belongs rather to the systematic whole, and the relations are involved in its structure. Within a systematic unity, for instance, there inevitably exist such relations as that of more and less, containing and being contained, priority and posteriority, outside and inside, and the like.

It may be well to note that, since the time when my *Elements* were published, the advances in physical science have tended powerfully to support the general conception of the structure of our universe to which I pointed. Professor Whitehead's admirable book, for instance, on *The Concept of Nature* seems to show that the old view of the physical system as consisting of separate substances has been as completely abandoned in physical science as in idealistic philosophy. It has given place to the conception of a system of qualities undergoing changes in regular ways within a four-dimensional spatio-temporal system. A view of the same kind has been very thoroughly worked out by Professor Alexander in his book on *Space, Time and Deity*. Such views are, in the main, quite in harmony with my conception of Orders. It may be well to note also that, when the physical system is conceived in this way, the old difficulty about the interaction between mind and body seems to disappear. The reluctance to recognize such interaction was largely due to a materialistic conception of the nature of "energy." If we recognize that the doctrine of the conservation of energy simply means that there is a certain quantitative equivalence between the potentialities of movement at different times, there seems no reason why this equivalence should not be found in movements connected with conscious choice as well as those that belong only

to the sphere of mechanical transformations. It would still remain true that the movements connected with volition differ from those that are purely automatic, just as those that are connected with the manifestations of light differ from those that are connected with heat or with what is called gravitation.[1]

I urged, however, in my *Elements*,[2] that the spatio-temporal system has to be regarded as limited. This was maintained on purely philosophical grounds—chiefly on the ground referred to above, viz. that all existent things, as distinguished from pure forms or orders, are finite; and I was not able to bring forward anything very definite in support of it from the point of view of physical science. I referred to the not altogether convincing arguments of Lord Kelvin; and had to admit that an opposite view has been maintained by some writers of repute; but I am now able to claim much more decisive support. Whatever may be the final interpretation of the discoveries of Einstein—a matter on which I must confess that I am still a good deal in the dark—it is clear at least that his views point definitely to a limitation in the spatio-temporal system. The recognition of such a limitation seems to involve that it should be regarded as only a partial aspect of a larger whole—what I call the "Cosmos," as distinguished from "our Universe." The attempt to deal with the conception of such a Cosmos, however, is necessarily of a highly speculative character; and it is not possible to deal with it without the use of the conception of Value. Hence I think it best to reserve what has to be said about it in this abstract for notice under the heading of "Philosophy of Religion"; and in the meantime to interpolate a few notes about my method of dealing with Ethics and Social Philosophy.

3. *Theory of Conduct.*—My *Manual of Ethics*, being designed as an introductory book for students, was necessarily occupied largely with accounts and criticisms of the views of others; and, even in its more constructive parts, I thought it right to

[1] See *Elements*, pp. 257–61, and article in *Mind* on "Mind and Body" October 1911).

[2] P. 362.

follow, as closely as possible, the general treatment of the subject in Green's *Prolegomena*—that being the book with which I was most nearly in agreement. I did not entirely agree with Green's philosophical basis, which appeared to me to be too largely dominated, both in its metaphysical and in its more purely ethical aspects, by the doctrines of Kant; and I now regret that I identified myself with his position as closely as I did. The conception of self-realization now seems to me too subjective a basis for Ethics; and I am unable to accept the doctrine that the only ultimate good is goodness. Even from the first I was more inclined to lay stress on the conception of intrinsic value, and to think that the supreme value must include Truth or Insight and Beauty or Loveliness as well as Goodness or Love; and further reflection has convinced me that, if any single term is to be used to characterize it, Beauty (at least in the sense in which the Greeks used the term *τὸ καλόν*) is less inadequate than any other.[1] I am now inclined to regard the good life as consisting essentially in the effort to create and conserve what is beautiful.

Though it is only in more recent years that I have become fully persuaded of this view, yet it was substantially the view that I had more or less in mind from the outset, and that I used, in particular, in the criticism of Hedonism, to which I devoted a good deal of attention both in the *Manual* and in the *Introduction to Social Philosophy*. With most of what I wrote on this subject I am still in agreement, especially with the contention that pleasure is neither that which has value nor the criterion of value but only the consciousness that something that we value (or that some aspect of our complex nature values) has been attained.

[1] See *Elements*, pp. 283, 292. The English word "beauty" tends, I think, to be understood in a more limited sense than the Greek expression. I have referred more fully to this subject in a paper on "Spiritual Value" in the *International Journal of Ethics*, April 1923. The emphasis that I have laid on the æsthetic aspect of experience has brought me into somewhat close relation to the theory that Professor J M. Baldwin has called Pancalism. But I prefer to call it Cosmism.

The conception of a "Universe of Desires," which I emphasized a good deal in the *Manual*,[1] was meant to bring out the fact that our valuations depend on a general attitude of mind; and that, in this sense, moral progress consists, as Nietzsche expressed it, in a "transvaluation of values"—though I did not agree with the particular way in which Nietzsche thought of this "transvaluation." It is in a similar sense that Ruskin's saying may be accepted, that "morality is good taste"—i.e. that it depends on right valuations. The Socratic doctrine that "no man is willingly deprived of the good" can also be accepted in the sense that no one willingly parts with what he values; but his valuations may belong to a somewhat crude "universe." Self-realization I should not now be inclined to describe as the end, but rather as the necessary condition for the realization of the supreme values, and as one aspect of these values.[2]

4. *Social Philosophy.*—If I am right in thinking that the ultimate aim of right conduct lies in the effort to create what is beautiful, the ultimate basis of social life would seem to be found in the fact that this creation is essentially a co-operative creation. I now believe that it would be best to make use of this conception rather than that of a social organism or a general will or even of a common good. On the whole, however, whichever of these conceptions we set out with leads almost inevitably to the same results. But the conception of co-operative creation leads more directly to the recognition of the three main directions in which social ends have to be pursued—viz. the control of the forces of nature to subserve human purposes, the subjugation of the animal passions in human nature itself, and the development of man's own rational or spiritual being. These ends cannot be altogether separated from one another; but they give rise to the three main aspects of a commonwealth—the economic or industrial, the political or legal, and the educational or spiritual. I have

[1] Fifth edition, pp. 47–9.

[2] For the general treatment of Value, see *Elements* Book II, chap. vii. Also *Introduction to Social Philosophy*, second edition, Note at end of chap. iv.

emphasized these distinctions in all my chief writings on social questions;[1] but latterly reflection on the work of Dr. Steiner and on the significance of the caste system in India has led me to realize more fully its importance.

In my earliest book[2] I laid a good deal of stress on the value of the Guild system of organization; and I still entertain considerable hopes of the achievement of important results from the adaptation of that system to the conditions of modern life; though I cannot go so far as some of the later Guild socialists do in thinking of it as a panacea for all our ills. I do not think that my attitude with regard to this can properly be described as one of socialism at all, except in the sense in which socialism means simply the repudiation of pure individualism.

From the first, and throughout, I have been opposed to the emphasis on the State as the exclusive or main form of community, and have urged the importance of international unity; and from the first I have recognized the supreme importance of religion as a basis for the kind of unity at which we ought to aim.[3] I have never been able to believe that any mere machinery, such as that of a League of Nations, could serve as a substitute for the conception of human brotherhood which a purified religion can alone support. The growing sense of unity among the English-speaking peoples seems to me to hold out a more genuine prospect of an ultimate federation of the world than any number of leagues could yield. The ultimate basis of community must be spiritual, rather than legal.

5. *Philosophy of Religion.*—Religion, in its most fully developed form, seems to mean devotion to what is regarded as having supreme value or worth. No doubt, most actual forms of religion fall somewhat short of this; but they nearly all approximate to it in some degree. A complete religion may

[1] *Introduction to Social Philosophy*, chap. vi; *Outlines of Social Philosophy*, Book I, chap. i, § 3; article on "The Three-fold State" in *Hibbert Journal*, April 1922.

[2] *Introduction to Social Philosophy*, second edition, pp. 77–9.

[3] See especially *Outlines of Social Philosophy*, Book III, chap. ii.

be taken to imply the conviction that the real Universe is a Cosmos—i.e. a perfectly beautiful whole. The conception of a Cosmos is, however, difficult to apply to the Universe as we know it, on account of the apparent contingency of some of its aspects and the evil that seems to be contained in others. This difficulty may be at least partly met by the recognition that the supreme value necessarily includes a creative activity by which its being is sustained. This implies a selective process and consequently imperfection in the earlier stages of existence. Evil may be interpreted as opportunity for creative action. Applied to the Universe as a whole, this view leads to the conception of a creative Imagination. In my *Elements* [1] I connect this conception with Plato's image of a Demiurge. I was not aware, when that was written, that a similar view was being put forward by Mr. Douglas Fawcett in his book on *The World as Imagination*; nor perhaps had I sufficiently realized to what extent a conception of this kind had been anticipated by Fichte in the closing phase of his philosophical development. In the attempt to apply the conception to the Universe as a whole I was greatly exercised by the problem of Time, and was led to suggest the view of a return of Time into itself.[2] I now think that it would be better to think of the time process as absorbing all that has value in the past stages of its development. Whether this should be taken as involving the conception of personal immortality, I had not fully determined at the time when the *Elements* were written; nor have I now any quite clear view on that subject. But I am led at least to think that the saying of Howison, that unless there is a "creation of creators" there is no creation (a view more recently emphasized by Dr. Ward) may be accepted in the sense that any real creation must be of the nature of a "creative evolution" in which, at the higher stages, the created beings work out their own salvation.[3] Perhaps we may even

[1] Pp. 374 *seq.*

[2] P. 451.

[3] See article on "The Idea of Creation" in *Hibbert Journal*, January 1923. This is, however, only a rough sketch of a view that I hope to develop more fully.

be entitled to say, with the French poet, that " chaque homme fait dieu un peu avec sa vie." In this sense also the view of Professor Alexander may be accepted, that " Deity " comes at the end, rather than at the beginning, of the evolutionary process. But it seems to be a necessary postulate of an idealistic conception of the Cosmos that all that has ultimate value in individual lives must be somehow conserved in the supreme realization. This conservation, however, might be conceived in several different ways.

I agree, however, with Sir Henry Jones in thinking that the main conceptions involved in a religious view of the Universe are best regarded as hypotheses, and not as dogmas. But, if they are the only hypotheses that make our Universe intelligible, one seems entitled to entertain them with a considerable degree of belief. The distinction that I drew in the *Elements* [1] between hope and belief is perhaps really only a distinction of degree. Most of our scientific beliefs are of a similarly hypothetical character; but of course these are not of so much importance in the conduct of life—at least for the majority of mankind; and hence it is not so difficult in their case to acquiesce in an *ignoramus*, or even in an *ignorabimus*. But I see no reason for thinking that we must rest for ever in such an attitude with regard to the more philosophical hypotheses.

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An Introduction to Social Philosophy. MacLehose, 1890.
A Manual of Ethics. Clive, 1893.
Elements of Constructive Philosophy. George Allen and Unwin, 1917.
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[1] Pp. 468–72

AN ONTOLOGICAL IDEALISM

By J. ELLIS McTAGGART

Born 1866; Clifton, and Trinity College, Cambridge; Fellow of Trinity College in Cambridge.

AN ONTOLOGICAL IDEALISM

ONTOLOGICALLY I am an Idealist, since I believe that all that exists is spiritual. I am also, in one sense of the term, a Personal Idealist. For I believe that every part of the content of spirit falls within some self, and that no part of it falls within more than one self; and that the only substances are selves, parts of selves, and groups of selves or parts of selves.

On the other hand, I should say that epistemologically I was a Realist. I should say that knowledge was a true belief, and I should say that a belief was true when, and only when, it stands in a relation of correspondence to a fact. I do not think that this particular relation of correspondence can be defined further, but it may be remarked that it is not a relation of copying or of similarity. Of facts I should say that whenever anything is anything, using both "anything" and "is" in the widest possible sense, it is a fact that it is so.

I should define philosophy as the systematic study of the ultimate nature of reality. The phrase "*ultimate* nature" distinguishes philosophy from science, which systematically studies the nature of reality, but not its ultimate nature.

Reality appears to me to be an indefinable quality, for which Being is another name. Nothing is unreal. When we say that the present Duke of London is unreal, what we mean is that the description "the present Duke of London" is a description which applies to nothing.

Existence appears to me to be another indefinable quality, which is such that all which is existent is necessarily real, but all which is real is not necessarily existent. It has been said that propositions, possibilities, qualities, and relations are real without being existent. I do not think that the independent

reality of propositions or possibilities can be justified. But qualities and relations (which may be grouped together under the general name of characteristics) are in themselves real without being existent. The qualities and relations of existent substances, however, may be called, as such, existent.

I have confined myself to a study of the nature of existence. It is the existent alone which has any practical interest for us. And the nature of the existent involves the nature of all other reality, since, taking any quality x, it is clear that each existent thing must have either that quality or the quality not-x, whose nature depends on the nature of x.

I have divided my system into two parts. The first admits only two empirical premises—" something exists," and " what exists is differentiated." The rest of it professes to be entirely *à priori*. In the second part the results obtained in the first part will be applied to those general characteristics which empirical observation tells us are, or appear to be, true of various parts of the existent.[1]

We know empirically that something exists. This is given us in perception. (I use the words " perception " and " awareness " in the senses in which they are defined by Mr. Russell in his *Mysticism and Logic*.) And if it should be denied or doubted that anything existed, then the very assertion of or denial or doubt would show that, at least, the assertion in question existed.

Existence is a quality. And it is evident that whatever exists must have some quality besides existence. The conception of quality is indefinable. For every positive quality, x, there is a negative quality, not-x, and one member of this pair can be predicated of everything that exists. Some qualities are Simple, and do not admit of analysis. Others are Compound, consisting of an aggregate of simple qualities. Others are Complex, which do not consist of simple qualities, but can be analysed and defined by means of simple qualities

[1] The first part is contained in vol. i of *The Nature of Existence*, published in 1921. The second part will occupy vol. ii of the same work, which I hope to publish in 1926 or 1927.

and simple relations. (Negative qualities are complex.) The compound quality which is an aggregate of all the non-compound qualities possessed by anything may be called the Nature of that thing.

I hold that the existence of qualities involves the existence of Substances. I should define a substance as that which has qualities and is related, without being itself either a quality of a relation, or having qualities or relations among its parts. (The first part of this is the traditional definition of substance. The last part is added to exclude facts.) By this definition many things would be called substances which are not usually called so, such as a sneeze or the group consisting of all red-headed archdeacons.

Is there only one substance, or are there more? Here, for a second time, and the last in the first part of my system, I appeal to perception, which shows us that more substances than one exist. But, at the same time, all the substances which exist may be taken together as a single substance.

Since there are more substances than one, they must exist in relations to one another—though, of course, relations also exist between qualities and relations, just as both qualities and relations have qualities. The conception of relation is indefinable, like the conception of quality. It is as fundamental as the conception of quality, and it is impossible to dispense with either of them in favour of the other.

Every relationship generates a derivative quality in each of its terms—the quality of being a term in that relationship. In the same way a derivative relation is generated between any quality and the substance which has it, and between every relation and each of its terms. Thus infinite series of characteristics are generated, but these infinite series are not vicious.

It seems clear to me that two substances cannot have exactly the same nature. (The difference, however, may not be a difference in original qualities, but may consist entirely in a difference of original relations, together with the difference in the derivative characteristics generated by those relations.) This result may be called the Dissimilarity of the Diverse.

Substances, being particular, cannot be defined, but they may be described. A description which applies only to one substance is an Exclusive Description of it. An exclusive description which is entirely in terms of qualities and relations, without introducing undescribed substances, I call a Sufficient description. Since no two substances have exactly the same nature, every substance has an exclusive description, and it can be shown to follow from this that, to avoid a vicious infinite series, every substance must have a sufficient description.

Some characteristics clearly imply others, since it is sometimes true that, if one substance has the characteristic X, that substance, or another which stands to it in some definite relation, will have the characteristic Y. This may be called Intrinsic Determination. But besides this there is a relation between all the characteristics of the same substance, such that, if any one of them were not a characteristic of that substance, we could not assert that any others of them were characteristic of that substance. This relation I have called Extrinsic Determination.

The nature of a substance may be regarded as a unity compounded of the particular characteristics which constitute it. But it may be regarded with equal truth as a unity which is manifested in those characteristics.

We now pass from the consideration of single substances to the consideration of Groups. By a Group I mean any collection formed of substances, or of collections of substances, or of both. The substances or collections which form the collection are called Members of the group. A group is distinguished from a Class, which is determined by a class-concept, while a group is determined by denotation. Any combination of substances or groups is a group, however trivial or unimportant the similarities and connections between its members.

We must distinguish between the members and parts of a group. If we take the group of all the counties in Great Britain, Surrey is both a member and a part of it. England and Whitechapel are parts, but not members. The relation of Whole and Part appears to me to be indefinable.

At this point we must introduce two further conceptions.

A Set of Parts of any whole is any collection of its parts which together make up the whole, and do not do more than make it up, so that the whole would not be made up if any of those parts, or of their parts, should be subtracted. A group may have many sets of parts, and I use the term Content of the Group to designate that plurality which is identical in the various sets of parts of a Group.

It follows from the definitions of a substance and a group that every group is a compound substance, but that several groups may be the same compound substance, e.g., the group of the counties of England and the group of the parishes of England are the same compound substance.

There is no group which contains all other groups, but there is one substance which contains all other substances. This substance is the Universe.

By means of the conception of the universe we can show that extrinsic determination is more extensive than was previously asserted, and that every fact about any substance extrinsically determines every fact about every other substance.

I pass to a position which is very vital to my system—the position that no substance is simple. It is possible that a substance is simple in some of its dimensions, but it could not be simple in all of them. This proposition appears to me to be self-evident and ultimate. I do not, therefore, attempt to defend it by direct arguments, though I believe that it is possible, by various explanations, to remove certain objections which might naturally be made to it.

Every substance, therefore, will have an infinite number of sets of parts. When two sets are such that no part in the second falls within more than one part of the first, while at least one part of the first set contains two or more parts of the second, I call the first set Precedent to the second, and the second Sequent to the first.

But now a difficulty arises. When the occurrence of the quality X determines intrinsically the occurrence of either the quality Y or the quality Z, but does not intrinsically determine whether it shall be Y or Z which does occur, let us say that

X Presupposes the one of the two, Y or Z, which does actually occur. X may have more than one presupposition, and two of them may be such that when one of them is fixed to one of the alternatives, it implies the fixing of the other to one of the alternatives. Let us define the Total Ultimate Presupposition of X as being the aggregate of all the presuppositions of X after all those have been removed, the fixing of which is implied in the fixing of any of those which remain.

It is clear that whatever has a presupposition must have a total ultimate presupposition. But I maintain that it can be demonstrated that the sufficient descriptions of the members of any set of parts of a substance, would except on one condition, have a presupposition without a total ultimate presupposition, which is absurd. The one condition on which this could be avoided must therefore be true. And that condition is that there must be some description of any substance, A, which implies sufficient descriptions of the members of all its sets of parts which are sequent to some given set of parts.

I think that there is only one way in which this result can be attained. Let A have a set of parts, B and C. Let it be true, in the first place, that each of these parts has a set of parts corresponding to each set of parts of A. In the second place, let it be true that the correspondence is of the same sort throughout, and that it is such that a certain sufficient description of C, which includes the fact that it is in this relation to *some* part of B, will determine a sufficient description of the part of B in question. And in the third place, let it be true that the correspondence is such that, when one determinant is part of another determinant, then any part determined by the first will be part of a part determined by the second.

I write B ! C for that part of B which corresponds to C, and B ! C ! D for that part of B which corresponds to that part of C which corresponds to D, and so on. I call such correspondence a Determining Correspondence, since by it, with the help of sufficient descriptions of B and C, we can determine a sufficient description of B ! C. I speak of C as the Determinant of B ! C, and of B ! C as the Determinate of C, or as determined by C.

I say that B ! C ! D is Directly Determined by C ! D, and Indirectly Determined by D. I call A a Primary Whole, and B a Primary Part. I call B ! C a Secondary Part of the First Grade, B ! C ! D a Secondary Part of the Second Grade, and so on.

If the conditions mentioned above are fulfilled, it follows that sufficient descriptions of the primary parts will determine sufficient descriptions of parts of parts of A through an infinite series. We shall then have fulfilled the only condition, by fulfilling which it is possible to escape from the contradiction which would otherwise be involved in the infinite divisibility of substance. And as there seems no other theory which would fulfil this condition, I hold that we are entitled to regard the theory of determining correspondence as true, and to assert that the universe consists of one or more primary wholes, which, again, consist of primary parts, whose further parts are determined by determining correspondence.

It is not necessary, in order to establish determining correspondence, that each primary part should have parts corresponding to *all* the primary parts in its primary whole. It might have parts corresponding only to a certain number of them—e.g., to B and C, when the primary whole contained B, C, D, and E. Nor is it necessary that every primary part should be a determinant at all—though, of course, every primary part must be a determinate.

If, as I believe, causation is to be defined as a relation of intrinsic determination between the occurrence of existing qualities, it follows that determining correspondence is a causal relation, and, consequently, that a network of causal relations spreads through every primary part of the universe, though it does not follow that the occurrence of *every* existing quality is causally determined.

Determining correspondence also involves a classification of the content of the universe—into primary wholes, primary parts, secondary parts of the first grade, of the second grade, and so on. It can be shown that this classification is based on qualities which are of fundamental importance, and it

may therefore be called the Fundamental System of the Universe.

In order that the secondary parts may be differentiated by determining correspondence, it is necessary that the primary parts should be differentiated independently of determining correspondence. This could happen in several ways. It might happen by a difference in original qualities, or by a difference in the sort of relations in which they stand to other things. Or, again, it might happen by a difference in the terms to which they stood in certain relations—though this last method of differentiation could not be the only method applicable to all primary parts, since that would involve a vicious infinite.

I now pass to the second part of my philosophy—as yet unpublished—in which the results obtained in the first part will be applied to those general characteristics which empirical observation tells us are, or appear to be, true of various parts of the existent. In this part of the system it is impossible to hope for the absolute demonstration of positive results. The most that we can do is to show that certain empirically-known characteristics will meet the *à priori* requirements of the first parts, and that no other characteristic which we know or can imagine will do so. But this will not assure us that the universe does possess these characteristics. For there may be others, which we have never experienced or imagined, which could also satisfy the *à priori* requirements. And it may be these latter which are found in part or all of the existent. But although we cannot attain absolute demonstration here, we may, I think, attain reasonable certainty. (With negative results we may be able to reach absolute demonstration. If we are certain *à priori* that nothing with the the quality x can be real, we can be certain that any empirically-known characteristic, which involves the quality x, cannot be true of reality.)

It seems to me that one empirically-known characteristic which cannot really belong to anything that exists is the characteristic of Time. I can only briefly summarize the argument which leads me to this conclusion. It is: that nothing can be really in time unless it really forms a series of Past, Present,

and Future (which may be called an A series), as well as a series of Earlier and Later (which may be called a B series). But the A series involves a contradiction. For every term of it is both past, present, and future. And, on the other hand, the three predicates are incompatible. But, again, we cannot regard the time series as totally erroneous. The terms which appear to us as a temporal series connected by the relation "earlier than," really do form a non-temporal series connected by another relation. (This I call the C series. It follows from what I have said that things are really in a C series, but not really in any A or B series.) [1]

We must also, I think, hold that nothing which exists can have the quality of being matter. My positive reason for holding this conclusion is that it appears impossible for anything which has the quality of materiality to have that determining correspondence between its parts which we have seen that all substances must have. This conclusion, however, can be supported by showing (as I have endeavoured to show in the third chapter of *Some Dogmas of Religion*) that the positive arguments put forward for the existence of matter are untenable.

It also seems inevitable that we should reject the reality of sense data—I do not mean that we must deny that we have objects which we perceive, but that we must hold that those objects have not the nature which is usually connoted by the name, sense data. The ground for this assertion is, again, that nothing which has the quality of being a sense datum can have determining correspondence between its parts. This position, like that of the unreality of time, involves that perception is sometimes erroneous. (I use Perception to mean the direct awareness of any substance.) The unreality of matter does not involve erroneous perception, since we never perceive anything as being material, though we judge it to be material.

What, then, shall we say about spirit? What, in the first place, do we mean by spirit? I should say that spirituality is the quality of having content—in the sense previously defined

[1] A fuller exposition of this argument may be found in my article, "The Unreality of Time," *Mind*, 1908.

—all of which is content of one or more selves. I should say that the quality of being a self is a simple quality which is known to me because I perceive—in the strict sense of the word—one substance as possessing it. This substance is myself.[1]

With regard to selves, I hold, further, that a self can be conscious without being self-conscious, and that it is possible for a self not to be self-conscious. I also hold that it is impossible for one self to be part of another self, or for two selves to have any common part.

The activities which spirits have, or appear *prima facie* to have, are perceptions, awarenesses of characteristics, judgments, assumptions (the Annahmen of Meinong), images, volitions, and emotions. By perceptions, as I have said, I mean the awareness of any substance. But, since we can base judgments as to the characteristics of substances on our perceptions of those substances, we must conclude that, although we cannot perceive *that* the substance A has the characteristic X, we can perceive the substance A *as having* the characteristic X.

There are three propositions about perception for which, I think, good reasons can be given. The first is that there is no intrinsic impossibility in a self perceiving another self, or a part of another self. The second is that a perception is part of a percipient self. The third is that a perception of the part of a whole *can* be part of a perception of that whole.

Then it follows that perception could be a relation of determining correspondence. We might have a primary whole, all of whose primary parts were selves, each of whom perceived all or some of the selves in the primary whole, and also perceived all the parts of each self it perceived. And it might be the case that each self had only one perception of each perception, and that he had no other contents but these perceptions. And in this case sufficient descriptions would be determined, within each self, of parts within parts to infinity. For each part would be sufficiently described by the description that it was the perception which a given self had of a given self, or of a given

[1] Cp. my article on "Personality," in the *Encyclopædia of Religion and Ethics*

perception within a given self. In order that this should be the case, it would be necessary that each self should have a sufficient description which did not depend on determining correspondence. Such a description might be based either on qualitative or quantitative differences between the selves (or on both), combined possibly with differences in relations.

It can be shown, further, that, while perception can thus give us determining correspondence, neither judgments, assumptions, images, or awareness of characteristics can do so.

There must be some substances whose parts admit of determination to infinity by determining correspondence. For there can be no substance which does not meet this requirement, and we know that there are some substances. Only three sorts of substance appear to be given us in experience—matter, sense data, and spirit. We do not know, and we cannot imagine, any others. We have seen that no substance can really be matter or sense data. This does not absolutely prove that all substances, or any substances, are spirits. For perhaps some, or all, substances are of some other nature which we do not know and cannot imagine. But although we have not here any absolute demonstration, we have, I think, good reason to believe that all reality is spiritual—in other words, that nothing exists except selves, groups of selves, and parts of selves.

What, then, about volition and emotion? I hold, in accordance with a view suggested by Dr. Moore, that a desire or an emotion is primarily a cogitation of the object of desire or emotion, which has a further quality—ultimate, and irreducible to any other sort of quality—which makes it a desire or an emotion. I hold that perceptions, which are cogitations, can be volitions and emotions.

Each of us has a perception of at least one other self. And I think that good reason can be shown for concluding that the relation in which a self stands to a self which it perceives is a relation of love—the percipient self loving the perceived self. By love I mean what is generally meant by the word—an emotion felt by one person towards another person.

This is the fact which decides all other emotions. If I love

A, I shall regard myself with reverence, because I love him. If I indirectly perceive B, by perceiving A's perception of him, then, since I love A, and A loves B, I shall regard B with a feeling which may be distinguished from love by calling it affection. And I shall regard with complacency the parts of selves whom I regard with love, self-reverence, or affection.

There remains volition. Our perceptions cannot be ungratified volitions, since their objects exist. But are they gratified volitions, or not volitions at all? This question is answered by our last result. We cannot but acquiesce in the existence of what we regard with love, self-reverence, affection, or complacency; and the essence of volition is acquiescence.

If our conclusions are correct, the universe consists of selves, arranged in one or more primary wholes, whose whole content consists in their perceptions of themselves and of each other—perceptions which have emotional and volitional qualities such as those in our present experience, but, there is reason to believe, much more intense in quantity than they are in our present experience. Are such selves immortal? If we take immortality to mean endless existence in time—and I think it should be taken in this way—it is clear that selves cannot be really immortal, since they are not really in time. But the question still remains whether, when they appear *sub specie temporis*, their lives will appear as having or not having an end in time.

If the universe—the whole of that which exists—is of this nature can it include a self who is God? I use "God" to designate a being who is a self, who is good, and whose power is such that, whether he does or does not create all other selves, his volition can profoundly affect them.

It is clear to begin with that there can be no one who is really the creator of the universe, since the created must be in time, even if the creator could be timeless, and since nothing is in time. Nor could there even be a being who, *sub specie temporis*, appeared as a creator. For this there are three reasons. In the first place, both God and the other selves would be primary parts, and they could not be dependent on God in any way in which God was not dependent on them. In the second place

God's volitions respecting them, like all volitions of all primary selves, would be cogitatively perceptions, and therefore they would depend on their objects, and not their objects on them. In the third place, I think that it can be proved that, *sub specie temporis*, all selves begin simultaneously, so that God could not appear to be prior to the other selves in time.

The first and third of these objections do not apply to the view that God, while not creating the rest of the universe, controls it, but the second objection would apply to this hypothesis alone.

But, it might be said, it is certainly the case that the volitions of selves do appear to affect the state of the rest of the universe. And could there not be some self whose volitions had the appearance—which, though only an appearance, would be a *phenomenon bene fundatum*—of influencing the rest of the universe so profoundly that he would properly be called a god? There might be such a being, but there seems no evidence which should make his existence probable. And it must be noticed that, if our theory is true, the force of the argument from design would be greatly weakened, if not entirely destroyed, since it can be shown that a certain amount of order, and, as we shall see later, a certain direction towards the good, follows from the intrinsic nature of existence, and so does not suggest a conscious designer as its only possible cause.

It is clear that, if this is the real nature of what exists, it appears to be something very different from what it is. (1) It appears to include matter and sense data, while really it includes nothing but spirit. (2) I appear to perceive myself, parts of myself, sense data, and nothing else. But in reality I do not perceive sense data, and I do perceive other selves and their parts. (3) I appear to have judgments, assumptions, and images, when in reality the whole content of myself consists in presentations. (4) Many of my volitions and emotions appear to be judgments, assumptions, or images, while in reality they are all perceptions. (5) All that I perceive appears to be in time, while in reality nothing is in time. Can we explain how reality should appear to be so different from what it really is?

This will involve our accepting the possibility of erroneous perception. Even if part of our cognition consisted of judgments, some of the errors in appearance mentioned above must be put down to perception. And, if our theory is true, all our cognition is really perception, and so all error must fall in perception. But is it not an essential and self-evident characteristic of perception that there is no possibility that it should be erroneous? And, if we remove this characteristic from anything, do not we thereby declare that it is not perception?

But when we look more closely we see that our certainty as to the correctness of perception is only that what I perceive exists, and exists as I perceive it, *at the time at which I perceive it*, and there is no certainty about any other time. Now we have seen that time is unreal. The condition "at the time at which I perceive it" must be translated into something else before it gives us the truth. And if that translation should allow for erroneous perception, we shall have achieved our end. It is clear, therefore, that the explanation of all error must be closely associated with the appearance of time.

It is only possible for me here to state what my theory is, omitting both the arguments which seem to me to render it impossible to accept various alternative theories, and also the exposition of the way in which I think that this theory does explain satisfactorily in detail the difference of the appearance from the reality.

The content of all selves, as we have seen, forms a system of perceptions which is determined by determining correspondence, and is in two dimensions—one dimension being the series of primary parts, secondary parts of the first grade, secondary parts of the second grade, and so on infinitely, while the other dimension is the series of parts in each grade. I believe that each of these parts is divided in another dimension into a series of other parts. The parts in this dimension are not determined by determining correspondence, and so must be simple parts, though, so far as I can see, there is nothing to determine whether their number is finite or infinite. (The series, as we shall see,

is bounded at both ends, but might contain an infinite number of parts if there were no next terms.)

I hold that in any perception, G ! H, all these parts are states of misperception by G of H, while G ! H, of which they are parts, is a correct perception by G of H. (By a correct perception I mean one which, while not necessarily perceiving H as having all the qualities which it does have, perceives it as having some of the qualities, which it does have, and does not perceive it as having any qualities which it does not have.)

Each of these states in the misperception series of G ! H will be a misperception of H as a whole. H, like G, will have such a series within him and will be perceived by G as having it. But part of the erroneous element of G's perception of H will be to regard this C series as a B series, and consequently H will be misperceived by G as existing in time. (G, of course, can also perceive himself, in his perception G ! G, and so misperceive himself as existing in time.)

Any perception in G will perceive at present whatever in H is at the same stage in the series as itself. It will perceive as future or as past whatever is at a different stage in the series. The only perceptions which are apparent perceptions—that is, which appear to be, as they are, perceptions—are *some* of those which are at the same stage in the series as their percepta. All others appear, not as perceptions, but as judgments, assumptions, or images. But even perceptions which are at the same stage of the series as their percepta, appear in some cases, not as perceptions, but as judgments, assumptions, or images.

What is the relation which connects the terms of the series —the relation which, when misperceived as temporal, appears as the relation of earlier and later? In view of the fact that the terms of the series are all states of misperception, while the whole of which they are parts is a state of correct perception, I believe that it can be shown that the terms of the series, though each a part of the whole, do not form a set of parts of the whole, and that no two of them can be mutually outside each other. The only alternative is that, of any two terms in the series, one must include the other.

We have thus an Inclusion Series, whose terms are related by the related "included in," and the last term of which will be G ! H itself, which includes all the others. All the terms of this series, with the exception of G ! H itself, which is correct, form a Misperception Series. And when the series is itself misperceived as being in time, the whole Inclusion Series acts as a C series—i.e. the series which is misperceived as a B series. The last member, however, G ! H, can never appear as present. For it could only appear as present to a term which was at the same stage in a series as itself, i.e. was a final term in a series. And as the final terms are not misperceptions, they could not perceive anything as being in time.

It follows from the fact that the inclusion series appears as the time series, that the time series is limited at both ends, and that a finite number of durations which are next terms to each other will exhaust it, in the sense that from any point of it we shall reach either end of the series in a finite time.

When we consider what is meant by the time series in different selves having a common C series, it follows that (in either direction) the final terms of the time series of all selves will appear, *sub specie temporis*, to be simultaneous.

We have seen that the relations "inclusion of" and "included in" appear, *sub specie temporis*, as "earlier than," and "later than." But which of them appears as which? It appears clear that, in the time series, the relation "earlier than" is more fundamental than the relation "later than," since it arranges the terms in the order of actual change. And when we look into the exact nature of the inclusion series, there is good reason, I think, to regard the relation "included in" as more fundamental to it than the relation of "inclusive of." And from these two results, I think that it is reasonable to conclude that it is the relation "included in" which appears as the relation "earlier than."

Then, in the inclusion series of H, it is H itself (which includes all the other terms, and is included in none of them), which, when the series appears as a temporal series, will appear as the latest term. (As this term contains all the content which is

to be found in any part of the series, it may be called the whole of the series.) For the standpoint of any other term it will appear as future—never as past or present. From its own standpoint, however, it will not appear as present, but as timelessly eternal. For this case is not in the misperception series, and so cannot misperceive itself as in time.

It follows that the whole is, not really future, since nothing is really temporal, but as really future as my breakfast to-morrow is future.

We return to the question of immortality. After a finite time (speaking *sub specie temporis*), each self reaches the term of the whole, beyond which there is no other. But that term is the end of the time series. When this term is looked at from the standpoint of any earlier term, *sub specie temporis*, it will be perceived as unending (which it is, since there is nothing beyond it in that direction), and as being in time. And since we shall reach a state which *sub specie temporis* is, an unending time, it will follow that, *sub specie temporis*, we are immortal. We are not really immortal, in the sense in which I have taken the word, but this is not because our lives really end (which they do not), but because their unendingness is not an unending duration in time. Thus the view, which has been maintained by some Christians, that heaven is both timeless and future, is not necessarily contradictory.

On the other hand, while, *sub specie temporis*, our lives never end, they do begin. For in this direction the birth of the series is a zero of content, which is not a term of the series of inclusive contents. And therefore the whole series will, in this direction, be limited by something outside itself, and so will appear as beginning in time.

How long, for each of us, the part of the series before, or after, the present life, is in comparison with that life, we cannot tell. But there seem empirical reasons for supposing that it is very great—that is that, *sub specie temporis*, a great length of time has passed from the beginning of time to the birth of my present body, and a great length will pass from the death of my present body till the attainment of the final term. There

seem reasons to suppose that both these periods are divided up into a plurality of lives, separated from one another, as the present life of each of us is separated from all that goes before and all that goes after.[1]

What can we say of the value in the universe, if our theory of the nature of the universe is true? People do not agree as to what qualities of the existent give it value. But I think that there would be general agreement that they would not include anything not included in the following list: knowledge, virtue, the possession of certain emotions, happiness, extent and intensity of consciousness, and harmony.

We decided of the final states of the inclusion series—those states which were the wholes of the determining correspondence parts, as distinguished from their parts in the discussion of inclusion—that in them the whole content of each self would consist in perceiving selves and their parts, and perceiving them correctly, that all their perceptions would be states of acquiescence in what was perceived, that each self would love all the other selves he perceived, and that this would determine his emotions toward himself, towards the selves perceived by the selves whom he perceived, and to the parts of all selves. Now if this state of things is judged by any or all of the criteria of goodness enumerated in the last paragraph, it will be very good. It will not possess complete good, which is impossible, since there is always a degree of good greater than any given degree of good, but it will possess very much greater good than we ever now experience, and the good will be unmixed with evil.

In all the other stages of the inclusion series, which are states of misperception, and whose nature will therefore be different, there is no guarantee that the states will be very good, or unmixed with evil. And since our present life is within those stages, we know empirically that they are partly good and partly bad.

Can we estimate all the values in the universe, including both the final and the pre-final stages? The pre-final stages

[1] Cp. *Some Dogmas of Religion*, chap. 4.

appear, *sub specie temporis*, as finite in time, the final stage as infinite in time. The value of any stage varies, *cæteris paribus*, according to its duration in time. But, as the final stage does not appear to itself as in time at all, we cannot infer directly that the value of the final stage is infinitely greater than that of all the rest. I think, however, that good reasons can be given for holding that the limitation or non-limitation of value depends on boundedness or unboundedness, and not on whether this appears *sub specie temporis* or not. In that case the final stage will have infinitely more value than the aggregate of all the others. And as the final stage is unmixed good, and the others are mixed good and evil, the universe as a whole and every self in the universe, is infinitely more good than bad, although the evil—what there is of it—is just as real as the good.

There is, then, a state of very good and unmixed good, which, *sub specie temporis*, must be regarded as lying in the future, and as being reached in a finite time, while it is itself endless. But the time required to reach it may have any finite length, however great, and we do not know how much evil may await us during that period. What we do know, if our conclusions are correct, is that all the evil of the future and the past are surpassed infinitely in value by the good which lies at the end of time.

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A PHILOSOPHY OF EVOLUTION

By C. LLOYD MORGAN

Born 1852; Royal School of Mines; Emeritus Professor
Bristol University

BIOGRAPHICAL

My paternal forbears, as my name imports, were Welsh. There are drops of Keltic, perhaps Silurian, blood in my veins.

Precluded, for sufficient reason, from following my father and elder brother to Winchester, I was sent to a Grammar School of the old type, and there nurtured in the straitest sect of classical tradition. Of Latin and Greek I learnt a little; of that little I have in large measure forgotten the details; only a dispositional "set" remains. But perhaps the seed of some appreciation of abiding things greatly expressed was there implanted in a soil not wholly unreceptive. In English Literature I received scarcely any formal instruction, though in my late schooldays the head master sometimes bade me read Shakespeare to him, commenting on the spirit rather than the letter of the text; and every Sunday he read me the "Keble" for the day. And it so happened that two or three of my elder schoolfellows—prefects who were supposed to keep us small fry snug in our dormitories—were ardent admirers of Keats and Shelley, with kindly tolerance for Wordsworth. They allowed me to creep from my cell in night-garb (when the coast was clear) and enter the fringe of their charmed circle. And though, when their eye was not on me I fell away to Byron, Scott, and even Tommy Moore, I felt that there were poets subtler in quality than they whom I, too, some day, might sincerely admire. Nor was prose (in specimens) neglected. My heroes noted or committed to memory their favourite passages and declaimed them in dim light and in subdued tones lest sleepers should awake. I still on occasion snatch their distant echoes.

Thus formally and informally—the latter to be counted as well as the former—my school upbringing was almost exclusively literary.

School days over, there was much home discussion as to some definite line of procedure which might lead to a modest competency. I must confess that my own attitude was for the most part negative to all proposals, clerkly or other. My father, who was interested in science, especially in geology in its practical applications, pro-

posed that I should go to the Royal College of Chemistry, then in Oxford Street, with a view to mining engineering as a profession. I doubted whether I had any real bent that way. Might I have a three months' trial trip (under Frankland and Valentin) to see what this " science " was like ? It was all very new and strange. But it was not only good enough ; it was amazingly good. It opened up a world hitherto hidden from my eyes. So I entered on the full course ; pursued it with zest ; and in due time gained my diploma as Associate of the Royal School of Mines in mining and metallurgy.

Meanwhile, shortly before leaving school and during my professional training, the Rector of Weybridge, where my parents then lived, led me to read Berkeley's *Principles* and Hume's *Enquiry*, partly as examples of literary form in continuous discourse, but chiefly, I surmise, as an initiation into the realm of philosophy. He guided my further reading, bidding me always to go to the masters, and regard digests merely as subsidiary aids ; and, fanning the flame of this interest, insisted on my tackling Spinoza, " quite the finest bit of coral for philosophic gums." Understand Spinoza ? Assuredly not. I was then quite incapable of grasping his thought ; perhaps now my hold on it is only a little less inadequate. None the less I felt that he provided the hinge on which the door I sought to open turned. In some such way it came about that throughout my course of scientific study it was the relation of what I then learnt to world-interpretation, rather than its relation to getting a living by its application, that bulked large to my view. Shall I confess that, being then young and given to day-dreams, I secretly cherished a hope that, since Descartes and Spinoza and Leibniz had in large measure built their philosophy on scientific foundations, I, too, might some day follow, at a long and respectful distance, in their footsteps ? But this was too presumptuous. Where was the bread—let alone the butter—to come from ?

Furthermore, I was still unprepared to carry out any such task even for the good of my own soul. I had, of course, read the *Origin of Species* and much that had been written thereon. But I had learnt that scientific knowledge cannot be won through reading only, however diligent.

I have elsewhere mentioned (in the Preface to my Gifford Lectures on *Emergent Evolution*, where details necessarily omitted in the subjoined outline sketch of my philosophical position may be found) how at Huxley's suggestion I took a course under him in biology ; and how a few encouraging words from him lent support to my belief that the borderland problems of life and mind afforded a

promising plot for an effort at intensive cultivation under the spade work of careful observation.

I had now an end in view, and some preparation for its prosecution. Engineering as a profession was no longer above my horizon. None the less my training therefor counted not a little. Still, I had somehow to get a living. So I tried my prentice hand at teaching with such teachers as Huxley, Tyndall, and W. K. Clifford as a far-off ideal—an unattainable ideal no doubt, but something towards which one might press on. After occasional work in schools I was appointed lecturer (Physical Science, English Literature, and Constitutional History) at the Diocesan College near Cape Town. There I served five years. Shortly after my return to England I was appointed by the Council of University College, Bristol, as lecturer to carry on, for the remainder of the Session 1883–4, the work in Geology and Zoology relinquished by Professor Sollas, who had been called to Trinity College, Dublin. At the close of the session my appointment as lecturer was continued. In due course I became Professor; and in 1887 Dean, and subsequently Principal. In that capacity I endeavoured to place the College in such a position as to justify the grant of a University Charter.

In fine, a boy with literary tastes, with early education in the humanities, and (I may add) with an ineradicable *cacoethes scribendi*; a youth for whom philosophy had a strong appeal; one who concurrently received a training in science for professional ends; one who was thus drawn to the interpretation of nature, in the most comprehensive sense, with the growing conviction that philosophy and science should contribute to one synthesis; one who has taught in several different class-rooms, but always subject to the vision of a philosophic end; now a contributor to this representative symposium; and hence (by request) the self-sacrificing victim of an autobiographical sketch. If it have any interest, this may lie in the somewhat unusual avenue of approach to the highlands of philosophic thought. Whether a more normal course of academic discipline would have been for better or for worse I cannot say.

A PHILOSOPHY OF EVOLUTION

I

In attempting to give a sketch of what purports to be a constructive philosophy of evolution, I plead guilty at the outset to the charge of accepting sundry presuppositions which are not susceptible of positive proof. I shall speak of such acceptance as acknowledgment. That which is thus acknowledged openly and avowedly goes beyond the evidence; such evidence, for example, as is afforded by the phenomena with which we are primarily acquainted in sensory experience; but a condition of its acceptance is that it contains nothing that is discrepant with that experience.

The detection of such discrepancy as shall preclude acknowledgment is the aim of a critical philosophy which, it is claimed, should take rank as a branch of science the subject-matter of which is the fundamental concepts that other branches of science take for granted as part of their departmental policy of interpretation. It has of late years been prosecuted with vigour, largely on the basis of phenomenalism, and has given results of great value, especially in relation to that which Professor Whitehead deals with under the *Concept of Nature*, as he defines "nature," i.e. that which exists in some wise independently of our apprehension and of the reflective thought in and through which it is interpreted. On these terms the problem of apprehension is another story, since mind is not regarded as part and parcel of "nature" as defined. The problem, thus relegated (by Mr. Whitehead) to "metaphysics," is, however, for an evolutionary concept of nature, one that is still of prime importance.

A constructive philosophy, as contrasted with a science or philosophy of criticism, essays a difficult task; and there are many—presumably there will always be many—who deem the outcome of little worth. There are others, however, who feel an imperative call to formulate, as best they can in accord with the knowledge of their day, a consistent scheme. Here some speculative hypotheses are not only permissible but necessary. If, however, they be entertained, even provisionally, this must always, I repeat, be subject to the proviso that, though there be lack of positive evidence by which they can be proved, there shall be nothing in them that contradicts the evidence that is available.

In any constructive philosophy—thus in some measure admittedly speculative—it conduces to clearness of exposition if one indicate at the outset the cardinal presuppositions—those which are accepted under what I call acknowledgment. And since I have neither right nor authority to speak for others, for myself alone I here speak.

In the first place, then, I acknowledge a physical world of current events, existent in its own right in so far as it is nowise dependent on being perceived or thought of by any human or sub-human mind. During the early phases of evolutionary progress there were no such minds to perceive the physical world or to interpret it reflectively. None the less I acknowledge that physical events then ran their course as a non-mental system, on a natural plan, in such wise as to be interpretable (though not yet interpreted) in terms, say, of a 4-dimensional space-time frame.

But what are we to understand by physical events? And what by a physical world? It is often convenient to distinguish, so far as this is possible, physical from chemical events, and these from such events as occur in the cortex of the human brain. Here and now I include all these under the general heading of the physical world. There may be *more* in this physical world—let us say in the cortex of the brain—than can be interpreted in terms of purely physical events only. But this something more (if it be granted) always "involves," as

I shall phrase it, an underlying stream of such physical events. If the less be not there the more has no being. Although, as I think, the evidence points to this conclusion, it is questionable whether it is susceptible of proof. Hence it is here accepted under acknowledgment, as part of that which purports to be a constructive scheme. On these terms the physical world is that which "involves" a basis of physical events existent in their own right.

To interpret the physical world, however, one must take into consideration the kinds of relatedness that obtain therein. In company with Professor Alexander I accept, as nowise contradictory to the evidence, and as part of the constructive scheme of evolutionary philosophy, an ascending hierarchy of kinds of relatedness. There is a kind of relatedness (*a*) of physical events in the atom; there is a supervenient kind of relatedness (*b*) of atoms in the molecule; there is a further kind of relatedness (*c*) of specialized molecules in the organic cell; there is the yet further kind of relatedness (*d*) of all the cellular tissues of the organism. These are only salient examples. We do not find (*d*) without (*c*), nor (*c*) without (*b*); or, as I put it, (*d*) involves (*c*), and (*c*) involves (*b*). To this I shall return in Section VII.

So far there is acknowledgment of a non-mental physical world with an order of involution in the kinds of relatedness among physical events or new clusters of physical events.

Next I acknowledge also correlation of psychical with physical events. When certain physical events occur in the cortex of the brain there is what is commonly spoken of as consciousness, sometimes as sentience, or what Mr. Alexander speaks of as enjoyment. Correlation in this sense just names, adequately or inadequately, that which I here acknowledge as nowise contradictory to such evidence as is available. It must not be confused with parallelism, or with interaction, which have this in common: that they imply two disparate orders of being. That is a different acknowledgment—no less speculative than this one.

And this acknowledgment is, for my constructive scheme,

without reservation or restriction. In accordance with it there are no physical events—there are no integral systems of such events—that are not also psychical events and integral psychical systems. There is one evolution in both attributes—distinguishable, but nowise separable. There is not some stage of physical evolution at which correlation begins; there is no stage of physical evolution at which correlation is absent. Hence there are not two worlds—a physical world and a psychical world—but one world, psycho-physical from top to bottom.

It unquestionably follows from the acceptance of this acknowledgment that there is a correlated psychical system in the atom, the molecule, the crystal, the bacterium, the fertilized ovum—in every differentiated physical system, according to its integral status in the evolutionary hierarchy. But of this there is and can be no evidence. It lies beyond either proof or disproof. For all the stuff and substance of a psychical system is wholly intrinsic thereto. One must *be* a psychical system in its integral entirety (no less and no more) in order to "know" it in the only way in which it can be "known" —immediately, by intuition, through enjoyment, or however else it may be phrased. Sober science quite wisely ignores any such perfectly useless speculation. Even sober philosophy may well regard it as only an implication to such ubiquitous correlation as Spinoza advocated.

Let it then be freely admitted that by most men of science and by the majority of philosophers such thoroughgoing correlation is *not* acknowledged. So be it. It is for them to work out their policy or their constructive scheme, evolutionary or other, on the basis of a different acknowledgment. This is not the occasion, nor have I the requisite space, to defend the thesis or to submit the dualistic antithesis to criticism. I am forced therefore to ask that it be provisionally entertained as *one* of the assumptions under which evolutionary continuity may be interpreted—e.g. the psychical continuity correlated (on this assumption) with the organic continuity of parents and children.

We may leave the implications with respect to the atom,

the molecule, the crystal, and the rest, on one side. The one psychical system that each one of us "knows" at first hand is that which he is, though he may acknowledge others. It suffices, then, to lay stress on the correlation of *this* psychical system with the physical system which he also is. This is the focal centre of acknowledged correlation. And here the feature which I am concerned to emphasize is that in which it differs from such correlation as was advocated by Huxley, which one may speak of as "restricted correlation"—that of psychosis with neurosis (*Essays*, ii. p. 158). Where does neurosis occur? In the sensorium. And where is that? In the brain. "The brain is the sole seat of consciousness" (vi. pp. 317, 258). I think the view is still not uncommon that the psychical system is the correlate of physical events in the cortex of the brain, *and there only*. That is the seat of the neuroses with which psychoses are correlated. The brain, it is said, is the "organ of mind." Such is what I have called the restricted form of correlation.

On the assumption of unrestricted correlation, here acknowledged, there are psychical correlates of *all* the physical and physiological transactions within the organism. There is no physico-chemical change in the living body the correlate of which is not, under normal conditions, integrated within the total psychical system that, when it reaches an assignable level, we call the mind. On this view the mind includes not only processes of experiencing, but all that is experienced in mental symbolism—as signs, for example, of occurrences in the external world as a physical system. Thus there are correlates of those chemical changes in the retina or the choroid which are the physical basis of colour vision no less than correlates of the transactions in the visual centre of the occipital cortex. If this be not grasped the whole purport of my acknowledgment of ubiquitous correlation will be misunderstood.

This only need be added: that, under such acknowledgment, there is, at no level, any interaction between the physical and the psychical attributes. There is one determinate evolutionary advance in both attributes. *Ex hypothesi* there is no lower

stage at which it may be said that psychical correlates do not count for progress; and there is no higher stage at which it may be said that physical events count any less than heretofore. Exigences of space force me to leave these Spinozistic statements thus baldly enunciated. Indeterminists will, of course, reject unrestricted correlation, and this implication thereof. They will develop their constructive scheme on other lines.

Our first acknowledgment, then, is that there is a physical world intrinsically existent apart from any perception or any human or sub-human knowledge thereof. Our second acknowledgment is that any given physical system is also, under correlation, through and through psychical. There is, however, as I shall urge, a third acknowledgment which completes the framework of the scheme of which I have been asked to give an outline sketch. It is, in brief, acknowledgment of relating and directive Activity of which evolution is the manifestation under the conditions of "space and time." To this I shall revert in the closing section.

II

A constructive philosophy, evolutionary or other, is bound to take risks. I take the primary risk of acknowledging "things"—i.e. clusters of physical events, regarded in abstraction from their psychical correlates if such there be. But what natural qualities does such a thing have? Those which are finally acknowledged are survivals under criticism, and must constantly be submitted to further criticism. It may be that much of what common sense naïvely assumes—and perchance not a little that current new-realism accepts—as *intrinsic* to the physical thing in its supposed existence independently of human or sub-human experience, is in some way *extrinsically* determined in relation to that experience, and should therefore not be acknowledged as proper to that thing in its own indefeasible right.

What do I here mean by "intrinsic" and "extrinsic"? Starting, as we all practically do start, with preliminary and

uncritical assumptions we provisionally accept at the outset all that we find as given, disclosed, or apprehended, in sense-awareness; we provisionally accept, too, the superstructure that reflective thought, embodied in common sense, has built thereon. We submit the outcome to more and more rigorous criticism; and finally, in the light of that criticism, we have to reject much that was provisionally accepted for common-sense policy at the start.

We probably find, as common to the phenomena we seek to interpret, *relatedness*. Under this I include what I may perhaps be allowed to call *stuff* and *substance*. Psycho-physical events are the ultimate stuff. But they go together in systems more and more complex as evolution advances. Such systems are relational. And the specific "gotogetherness" of events, which renders any given system what it is, I here speak of as its substance. On this understanding there are no natural systems within which stuff and substance may not be distinguished under analysis. But any sub-system may afford what may be regarded as a new and more complex kind of stuff which is integrally related in some more comprehensive system. Thus the stuff of the atom is, broadly speaking, electronic; that of the molecule, atomic; that of a drop of water, molecular; and so on in ascending grades until we reach those vital events in the cellular tissues which are the stuff of the organism. The substance of the organism, in this sense, is the total integral relation of its stuff; the substance of the drop is the specific kind of intra-relation which renders it the system that it is; the substance of the molecule is the set of relations of the atoms therein, and so on. Both stuff and substance thus exhibit ascending evolutionary grades.

In any such system I speak of the stuff and the substance *within it* as intrinsic. But when two or more such systems are inter-related I speak of the relation of one to the other as extrinsic. The distinction is partly, but not, I think, wholly, methodological. Revert to the atom, the molecule, and the drop. The stuff and substance are intrinsic to the drop, and wholly within it. But the stuff is molecular. And if we consider the relations

of the molecules *inter se* they are extrinsic to the molecules severally. So, too, the relations of the atoms are intrinsic to the molecule; but the relations of the atoms to one another are extrinsic to the atoms. I take it that this kind of treatment is in accord with the current procedure of science. The drop, the molecule, the atom, the electron, are successively taken as centres of attentive regard in the progress of research, as analysis is carried further and deeper. So far, therefore, the treatment is methodological. But if we acknowledge molecules, atoms, and electrons, to be independent of our conscious regard—i.e. existent in their own right severally—then this methodological treatment reveals, and does not in any true sense create the intrinsic nature. They are not cut out from a continuum by our interest; they are discrete entities for our interested research. It is clear, then, that, if we use the word " intrinsic " we must always qualify it by naming this or that natural system to which it is thus intrinsic—saying intrinsic to the drop, to the molecule, to the atom, and so on.

Now I shall urge that, in some given crystal, for example, its proper shape and size are intrinsic and are nowise dependent on its extrinsic relations to some other system, e.g. some percipient person, or, in Mr. Whitehead's phrase, some " percipient event." But what we call the visible or apparent shape and size stand on a different footing in so far as they depend on the extrinsic relation of an optical (photographic) or visual (retinal) record. In no optical or retinal record is the spatial relatedness intrinsic to it quite the same as the spatial relatedness intrinsic to that thing which gives the record. Since therefore vision is founded on retinal records, and since there is always extrinsic relatedness of record to that which is recorded, the doctrine that vision is a matter of direct apprehension, or disclosure to sense-awareness, affording immediate acquaintance with the own proper bulk and figure of that which is seen, stands in need of specialized methods of critical treatment. And if it should be found that, under specialized criticism vision cannot, save indirectly and as co-related with data afforded by contact-touch, lead to the acknowledgment of the intrinsic spatial relatedness within any

given thing in the physical world, the further question then arises whether the colour, say, of a ruby, is intrinsic thereto—a quality that is to be acknowledged as all its own—or demands for its interpretation extrinsic relations to a retino-cerebral system. Here, too, the doctrine of apprehension or disclosure—naïvely accepted at the outset by common sense—stands in need of criticism at the hands, not of logicians only, but of those biologists and psychologists who are adequately equipped for the task—those, for example, who have spent some time in close touch with the very complex phenomena of vision.

I have laid stress on such specialized (evolutionary) criticism at the hands of biologists and psychologists because, as I think, this line of criticism has not of late years been prosecuted in England with anything like the vigour or the success attending that which has been directed towards the philosophical foundations of physics ; and this notwithstanding the fact that modern theories of relativity are almost wholly concerned with retinal records, or with optical records which have to be interpreted through vision.

III

" A critical discussion of vision ! " says the plain man ; what is there to criticize ? It is transparently obvious that through vision, as an inalienable prerogative of mind, we have direct apprehension of that which goes on in the physical world around us. Of course it may in some measure be subject to error ; and against this we must learn to be on our guard, for example, through co-relating visual experience and touch-experience afforded by direct contact with things. What you mean, then, by a critical discussion of vision will presumably deal, not with direct apprehension through the instrumentality of the eye, which must be taken for granted and stands in no need of criticism, but with the occasional illusions to which, under abnormal circumstances, even the most perfect of our modes of sensory experience is liable.

That is not what I mean ; at any rate it is far from all that

I mean. A critical discussion of vision goes much deeper. But it is not easy to present what I conceive to be the evolutionary position in brief but comprehensible form.

A good deal must be taken for granted as having, as I think, stood the test of philosophical criticism in order that we may carry that criticism a stage further. Given two things as systems of events with their several intrinsic relatedness, let one be a coin, and the other a photographic plate. Consider their extrinsic relatedness. Let us grant that the coin is a centre from which issue radiant events ; and let us call it the centre of *effluence*. There is all-round distribution of radiant events ; but there is an orderly passage of certain " selected " events through the lenses of the camera which have been specially arranged so as to give what we call an " image " on the plate. Let us speak of the events on reaching the plate as exercising *influence* thereon, and let us speak of this influence as *advenient*. Let us also grant that something happens on the sensitized film, and let us speak of this as *a pattern* of specific chemical change. Then this pattern, though extrinsically determined, is intrinsic to the plate. And if we may speculatively suppose that these chemical events are accompanied by a psychical correlate (let us say a kind of enjoyment appropriate to its evolutionary status) that enjoyment will be no less intrinsic to the system of the plate. There is passage of advenient influence, let us say electro-magnetic, from the coin to the plate. There is no such passage of specific chemical change or of its accompanying enjoyment, if such there be. These are wholly intrinsic, and only begin when the plate is affected. Nor is there any passage of physical events, as part of this story, in the opposite direction —from the plate to the coin.

Now substitute for the plate a person. Here the retina (or the choroid) plays the part of the sensitized film ; the ancillary structures of the eye play the part of the photographic camera. *Both are the outcome of long ages of evolutionary progress.* Both (and how much else !) are involved in the purely physical basis of vision. Until both have reached a " critical " stage vision proper—as contrasted with preliminary and more or less diffused

sensitiveness to light—is not on the *tapis*. For the rest, the story is closely similar. The passage of influent events is from the coin to a sensitized receptor-surface. The changes therein are wholly intrinsic to the organism; and in the organism these changes, as such, begin. Effluence, advenience, nay, even influence in a sense, are beyond it. All that it *has*—is acquainted with, so to speak—is a receptor-pattern.

The behaviourist now takes up the story, which must here be condensed to the utmost. Given this, that, or the other, receptor-pattern due to advenient influence (of which it knows

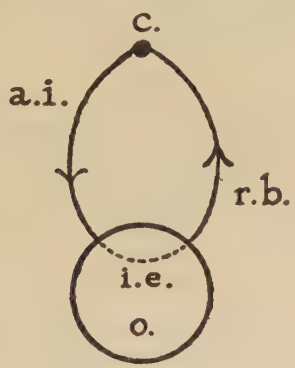

FIG. 1.

nothing) the organism responds in this, that, or another, way. It is a terribly complex business; but the gist of it comes to this: As the outcome of a prodigiously long evolutionary process, responsive behaviour *is directed towards the source of physical effluence*. To be elsewise directed would serve no evolutionary purpose. There is thus reactive response to advenient influence; this reaction is centred on the source of influence; and a "contact-pattern" of touch receptors may result. The point for emphasis is that the centre of effluence becomes through behaviour the centre to which response is directed and becomes also a centre of new modes of influence.

We thus get a closed curve which may be reduced to its simplest expression in a diagram, where *c* is the centre of effluence

and *o* the organism ; where the arrow *a. i.* represents the passage of advenient influence, and the arrow *r.b.* the course of responsive behaviour. The curve is completed within the organism along the dotted line *i.e.*, which stands for *intervenient events*.

Here the physiologist takes up the story. He tells us, in brief, that when advenient influence gives a receptor-pattern, say, in the retina of a chick a few hours old, there follows an effector-pattern of muscular excitation, the outcome of which is a definite form of behaviour ; and that between the one pattern and the other there is a passage of intervenient events along afferent nerves, through a complex neuronic route in the central nervous system, and along efferent nerves to the effector-pattern.

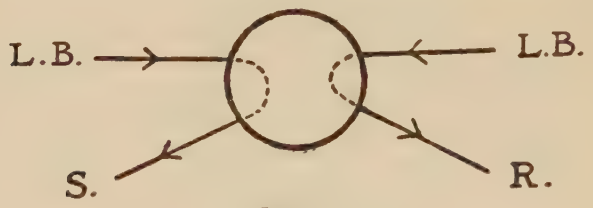

FIG. 2.

Apart, then, from detail, what is the salient feature ? That the whole course of intervenient events, no matter what may be its bewildering complexity, is intrinsic to the organism. And if there be psychical correlates they, too, are no less intrinsic. Within the organism, and nowhere else, do these physico-chemical and vital events occur ; within the organism are the stuff and substance of the correlated psychical system. Beyond the organism neither does the one set of events nor the other extend.

A little detail, of no little importance in view of what is to follow, must now be introduced. We have seen that the centre of effluence becomes through behaviour the centre to which response is directed ; becomes also a centre of new modes of influence. Revert, in illustration, to the chick that automatically pecks. Let the centre of effluence be a ladybird, on to which responsive behaviour is directed. The ladybird is seized. A

new receptor-pattern is afforded in the mouth. There is a new course of intervenient events; a different effector-pattern; and a quite different form of behaviour—that of rejection. Let us express this in a diagram. On the left-hand side of the figure, advenient influence gives a retinal receptor-pattern. There follow a course of intervenient events and a form of behaviour, S, the seizing of the insect. On the right, chemical influence in the mouth gives receptor-stimulation. On this there follow another course of intervenient events and a different form of behaviour—that of rejection, R. *Initially the two sets of events are independent.* And the sequence of one on the other might go on *da capo* on subsequent occasions—as in the case

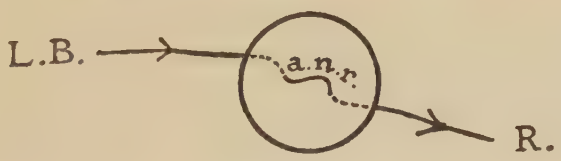

FIG. 3.

of the moth that flies again and again into the candle-flame. But in the chick, as a matter of observation, it does not. On subsequent occasions the chick rejects ladybirds "at sight," as we say—that is, on receipt of the retinal pattern. How is this to be interpreted by the physiologist? Perhaps best in terms of just one more diagram, which represents the establishment of a central neurone-route (*c. n. r.*) which links the two courses of intervenient events. On the second or third occasion there may be incipient pecking, followed by rejection-behaviour, though the insect is not seized or taken into the mouth. This is a passing phase. Soon the S-response is suppressed; only the R-response is expressed in behaviour. Later both are suppressed. One cannot here tell the whole story.

The main point is the establishment of an acquired neurone route (*a . n . r.*) serving as a link between retinal stimulation of a certain pattern and rejection-response. This kind of thing is nowadays spoken of as the "conditioned response." Inter-

venient linkage is wholly intrinsic to the organism ; any psychical correlates accompanying receptor-patterns (including those afforded by motor behaviour) and all intervenient events, are no less intrinsic. But a noteworthy evolutionary feature is that the responsive behaviour as conditioned—our R, for example —is what one may call *proleptic*. It is " preventive " in both senses of this word. It comes before an actual receptor-pattern in the mouth, and it provides for its non-occurrence. Herein lies its biological utility as a " critical " turning-point in evolutionary progress.

IV

What is the salient outcome of the foregoing section ? It will be admitted that all receptor-patterns, visual or other, and all intervenient events, are within the organism. On the acknowledgment of unrestricted correlation it follows that within the psychical system, which is one with the physical system, are the psychical correlates of these organic events. These correlates afford the primary stuff of the mind as percipient ; their *de facto* " gotogetherness " is the substance of the mind so far as such perception is concerned. *The mind therefore is wholly intrinsic to the individual percipient.*

The question then arises : How can this mind, intrinsic to the person, stretch out into the external world from which advenient influence comes ? All may concur in the reply that it does so through conscious *reference* to things in that world which thus become objects for that reference. But in the critical interpretation of this reference there is a parting of the ways. Those who take one way urge (as I understand) that in reference to an object of vision the mind just gives back to it that which is received from it. Such is the nature of direct apprehension or disclosure to sense awareness. Those (or at any rate one of those) who take the other way urge that what is received is advenient influence only ; that this produces a receptor-pattern ; that this receptor-pattern has its psychical correlate ; that this psychical correlate is a *sign* that has reference

outwards to the effluent source (the thing) from which advenient influence comes. I speak of such outward reference of psychic signs, arising *within* the psycho-physical system, as *projicience* (cf. Sherrington, *Integrative Action of the Nervous System*, p. 324).

Revert to the coin and the photographic plate. We acknowledge the coin to be a circular disc with its own intrinsic figure and bulk. From it, through the lenses of the camera, there comes advenient influence, and an " image " is formed on the plate the shape and size of which varies in a thousand ways according to the distance and the orientation of the coin, though intrinsic to the coin there is but one shape and size. Substitute for the plate a retina. *Mutatis mutandis*, what holds for the optical record of the plate holds also for that of the retina. Now introduce correlation. To each of the thousandfold " images " on the retina there answers a psychic sign. Of that sign, and of nothing beyond it, there is so-called knowledge by acquaintance. Under evolutionary criticism that sign is the " sensum," or " sense-datum," or " sensation."

Now I take it that a sign implies (1) reference to something that is signified, and (2) some difference, not only numerical, from that which is signified. This is exemplified by words which refer to, but nowise *are*, the things to which they are referentially attached. My contention is that this holds also for the psychic signs on which vision is founded.

The issue however is very complex, and the purport of my contention may well be misunderstood. So far as perception is concerned the position is that the *primary* stuff of a psychical system is not restricted to concomitants of events in the so-called sensorium, but includes also the correlates of receptor-patterns. This, however, does not imply that the correlation does not extend to the cortex. One may put the matter thus : If r be events in the receptor-pattern and s the sequent events in the sensorium, the suggestion is that correlation is not restricted to s, but includes r also. The primary correlation is unrestricted, i.e. is with $r.s.$, not with r or s only. Of course, if one sever the connection between r and s one cannot have $r.s.$ Here r

with its correlate is cut off from the psycho-physical system in its normal entirety.

The further suggestion is that the psychic signs primarily correlated with *r. s.* are projiciently referred to the source from which advenient influence comes. Now in vision *r* is a spatial pattern, and its psychic sign betokens a spatial arrangement in the object of vision. Retinal receptor-patterns have been specially differentiated in the course of evolution to that end in subservience to behaviour. The auditory pattern in the organ of Corti is no less spatial (with a very complex figure) in the frame of the organism. But the correlate of that pattern does not betoken a spatial arrangement in the object of audition. It is not a sign of space-figure. Such a sign in the case of audition (or of smell, or of taste) would be quite useless for behaviour. And that which is useless has not been evolved in the psychical system.

There must therefore be something other than space-figure, which serves to differentiate these patterns. They are not only patterns in space, but patterns of quality—of differential receptor-response within the pattern as a whole with correlated psychical qualia. A captious critic may cavil at the use of the word " pattern." I see no objection to its application to the aroma of a sip of coffee, or to a musical chord. At all events it is such a pattern (not a spatial pattern) that I regard as projicient on to the coffee I sip, or the quartette I hear.

Now, in vision itself there is not only the spread-out spatial extent, say, in a rainbow, there is also the colour-pattern. Of course this, too, is spread out, but I contend that it is not *only* spread out but also a pattern of colour-quality, analogous to the tone-quality of a chord. And this colour-pattern as a psychic sign is, as I hold, correlated with certain chemical changes in the retina and choroid, and nowhere else. It is there that the colour signs have their genesis ; it is thence that they are projicient (not, of course, effluent) on to the rainbow as an object of vision. In brief, colour is the psychic sign correlated with certain specific events in the organism. Until

these specific events were evolved colour could have no existence.

There remains the distance-factor in vision. It is extraordinarily complex in evolutionary genesis; and of it this only can here be said. The psychic sign which betokens distance is *primarily* the correlate of a proprio-ceptor pattern of motor origin. Of course there is more than this—disparateness of the two " images," supplementary additions in terms of " meaning," and so forth. But this pattern seems to be the kernel, the psychic sign of which is the distance-factor in visual projicience.

The gist of the matter, then, is that differentiated receptor patterns of many kinds have their differentiated psychic signs —each after its kind—and that these signs are projicient in just those ways which subserve behaviour. It is behaviour that completes the curve of Fig. 1. No matter how richly amplified the details of that curve may be we have in it a frankly behaviouristic interpretation of what normally follows the incoming of advenient influence from some given centre—namely, the outgoing reaction of the organism to that centre. If, then, there be conscious reference (and this we may take to be commonly granted); if this reference play a part in the evolutionary drama (and this some behaviourists do not grant); such reference will be centred in that to which behaviour is directed. Projicient reference to the thing must coincide with a focussing of behaviour on that thing, otherwise no good whatever can come of it.

We have now seen how, on the acknowledgment of correlation, there is, in the primary genesis of the psychic stuff of perception a physiological basis which I have generalized in the expression $r.s$. When we pass to what may broadly be spoken of as representative imagery, the crucial question is: How can we interpret the representation of the psychical correlate of r, when no actual receptor-pattern, r, is stimulated through advenient influence? How can we interpret r' as an image which has functional utility of much the same kind as r itself? One seems forced to assume as nowise contradictory to the

physiological evidence—nay, as I think, supported thereby—that when the physiological changes in some specific *s*, which was *primarily* a factor in a specific *r*. *s*., are *secondarily* excited within the sensorium by some other specific *r*. *s*., its psychical sign is *r'*. *s*—where *r'* is the image, representative of *r*. It is, I think, because this secondary business *is* restricted to the sensorium that Huxley and others have urged that this holds also for the primary business of perception.

The foregoing statement is so terribly abstract that one must try to give a concrete illustration, as simple as possible. Let it be granted that we are in the field of the *conditioned* responses of behaviourists. Revert, then, to the teaching of Fig. 3. Here a connection is established between two courses of intervenient events, so that events on the one route are switched off on to the other route. We have seen that this provides for what I called "proleptic behaviour." Such is the frankly behaviouristic story.

Introduce psychical correlates; *now* we may speak of a "visual centre" and a "taste-centre," situate respectively on this route and on that. In the conditioned response these two centres are connected. Let the first course of events be started by retinal stimulation. The taste-centre on the second course is indirectly called into action. Events within it are centrally revived and not peripherally renewed. But these events were originally "ladybird events" for behaviour; their correlates were "ladybird signs" for conscious reference. So, too, their revivals are "ladybird events" for behaviour, and "ladybird signs" for reference. Revivals, no less than renewals under stimulation, have psychic signs which, if they be of any use, attach to something signified; and this thereby takes incipient form as the *object* of experience. And just as the behaviour-events under organic revival are *proleptic* and "prevent" the pecking response, so is the reference under psychic revival *prospective* and likewise "preventive" in both senses of this word.

We thus have, starting out from the "critical" turning-point of the conditioned response, not only a behaviouristic interpreta-

tion of biological events, but a psychological interpretation of that which lies at the very threshold of what we speak of as conscious guidance, namely, *prospective reference* to that which is coming, but has not yet come, under normal routine. The hall-mark of effective consciousness is that it forestalls the not-yet of the future. Furthermore, through behaviour visual signs and gustatory signs have common reference to one external centre for further behaviour *and* for perception. Carry this up further. The physical thing as a centre of effluence becomes also the centre of projicient reference—the object as perceptual construct. In us vision takes the lead. And we say that a piece of ice looks hard, and slippery, and cold, and so forth. But all these signs are within us, and, as I contend, are projicient on to the bare physical thing which has become for us the object signified.

V

A cardinal distinction has now come into view—that between (1) *what is objective as a construct of psychic signs projiciently referred thereto so that it becomes, for perceptual experience, the object signified; and* (2) *the acknowledged, non-mental thing, intrinsically existent in its own right, wholly independent of any such constructive investiture, and yet constituting the skeleton which is thus objectively clothed with flesh and raiment.*

But is there justification for any such distinction between physical skeleton and objective flesh and raiment? Some new realists urge that there is not. It is hard to state with suitable brevity the cardinal issue; and one runs grave risk of unintentional misrepresentation. Revert to the coin. It is, they say, a cluster of non-mental sensa which go together in orderly relatedness within the coin itself. That is what the coin is known as; that, too, is what it verily is. There is nothing of the nature of what I call projicience. The mind just apprehends this or that of the many figures or shapes as disclosed to sense-awareness. It contributes nothing to the coin as object of that awareness; it registers what the coin contributes

through the several sensory avenues. The coin is a construct in its own right, and as such it has all the shapes and all the sizes that are seen piecemeal from this point of view or that, from this distance or that. These are the phenomena—all equally valid under disclosure. By dealing with them and them only, subject to suitable scientific method, a policy of interpretation works admirably. There is no need for a physical thing supposed to be other than the phenomena, since they amply suffice for all scientific purposes. (Cf. Russell, *Analysis of Mind*, p. 98; Nunn, *Proc. Arist. Soc.*, 1921, 2, p. 128.)

For us, too, the object is a construct; but the mind is a participant in its construction. It is this, I take it, that new realists are chiefly concerned to deny. The object, they say, is what it is and as it is irrespective of the mind to which it may or may not be disclosed in sense-awareness. The mind, in this regard, is just an interested onlooker. Whether, and if so in what manner, the onlooking mind is evolved we are not clearly told.

Now, for better or worse, in acknowledging correlation I seek to interpret the psychical system as evolved *pari passu* with the physical system of the organism. It is the psycho-physical mind-body system that through behaviour and perception participates in object-construction. This follows from what has been said above, and I must not labour the position. But this may be added. For new realists the organism is the instrument the evolution of which affords a means of disclosure to the mind. It is this merely instrumental rôle of the organism that the correlationist on his part subjects to criticism. He urges that the mind is one with and inseparable from the organism —distinguishable only in attribute. And here new-realists and neo-idealists combine forces to criticize correlation. The outcome of criticism and counter-criticism remains, as I think, undecided.

My business here is to develop as best I can my own thesis. And part of that thesis is acknowledgment of the intrinsic reality of a system of things from which advenient influence comes in such wise as to stir the psycho-physical system to response in behaviour and to generate psychic signs projicient

on to the thing which thus becomes an object. It remains therefore in this connection to indicate briefly the line of approach which leads to my acceptance of this acknowledgment.

The difficulty, as I see it, is to pass from that which is intrinsic to one's own physical system to that which may be acknowledged as intrinsic to some other physical system, say that of the coin. The avenue of approach is, I think, through contact of one with the other.

If we submit our contact-data, given in a tango-receptor pattern to analysis—say, in the matter of spatial relatedness —we find no essential difference in the outcome from that reached by a similar analysis of the receptor-pattern of the " image " on the retina. The difference lies, not in the intrinsic relation within the pattern, but in the extrinsic relations of the pattern, as record, to that which is thereby recorded. Let the coin be a threepenny bit, to which the palmar surface of my middle finger is applied. Analytically distinguish any two " points " in the touch-pattern on the fingers which have the maximum distance-relation. Then these two points are so spatially related as to give that distance as intrinsic to a pattern in my physical system. But these two points are in contact with two points intrinsic to the coin, and give a distance within *its* physical system. We thus pass from points and their distance intrinsic to my system, to points and their distance intrinsic to the coin-system, through the superposition of record on that which is recorded. But we have to acknowledge that through superposition a point on my contact-record is positionally the same as a point on the coin. In strictness, however, they are not the same. All that we can say is that they fall within so small an area that we may without risk of serious error speak of this minute area as common to both systems. Hence there is some measure of acknowledgment going beyond the evidence.

Now deal constructively with all the data thus distinguished piecemeal in analytic treatment. The resulting construct gives the acknowledged figure and bulk which we accept as intrinsic to the coin. We may then employ the diameter of the coin as a " measuring-rod " for ascertaining the like spatial relation

intrinsic to any other system on which this "rod" may be superposed. On such procedure (if we may co-relate indivisible distance with divisible length) *all* measurement, it may be urged, is ultimately founded.

But why, *mutatis mutandis*, do we not get a like result through vision? Because, in vision there is no such superposition of record on that which is recorded. Because our vision is founded on distance-receptors with lens intervention. Furthermore, it is part of our acknowledgment, not only that under contact the measurable length *a b* in the record is the same as the length *a' b'* in that which gives the record, but that the orientation of *a b* is that of *a' b'*. On the former count this is never so in vision, since the distance of points on the retinal pattern is always reduced through the office of the lens. It is seldom so on the latter count, since there is foreshortening when spatial direction in the thing differs from that in the retinal record. Hence the elliptical figures in retinal or optical records of the coin in accordance with its orientation. It is noteworthy that events in the retinal record are never physically simultaneous with those in the effluent source.

Let me put the heart of the matter thus: In a contact-record of an event the several point-instants, as items of stuff, are very nearly co-incident and simultaneous in the event recorded and in its record. This is not so in the visual record of an event regarded from the physical point of view. In other words, in the contact-record, as contrasted with the visual record, the factor of relativity is reduced to a minimum.

VI

In what I now venture to call *emergent evolution* the emphasis falls on that which nearly thirty years ago I spoke of as "selective synthesis" at certain "critical" turning-points in the course of evolutionary advance. The expression "selective synthesis" being ambiguous, it seemed better to drop it and try to find some other. G. H. Lewes's word "emergent" appeared to be suitable; but as qualifying "evolution" it is

not wholly free from ambiguity. For the word "evolution" itself is ambiguous. In the older sense it meant the unfolding of what is already in being, but enfolded. In that sense emergence is the coming into view of that which has hitherto been submerged—virtually there, but hidden; latent, and not as yet patent. Nowadays the word "evolution" has supplanted the older word "epigenesis," and means the coming into existence of something in some sense new; and this something new, in a specialized sense, is what Lewes labelled "emergent," as contrasted with "resultant." The emergent, he claimed, is unpredictable before its *de facto* epigenesis; the resultant is calculable (by some Laplace) before the event, on lines analogous to the so-called "parallelogram of forces." On these terms emergent evolution is on the one hand through and through naturalistic; but, on the other hand, it embodies a protest against a mechanical, or so-called mechanistic, interpretation. For that is based on resultant treatment only, and is, we urge, insufficient in view of the course of natural events.

To these preliminary considerations this should be added. Naturalism as such is openly and avowedly agnostic in the philosophical sense. What we find in nature, physical and psychical, is accepted as we find it—accepted in Mr. Alexander's phrase "with natural piety." For modern science, I take it, the rubric of causation runs: Given such and such a describable field of relatedness, and such and such natural entities therein, likewise describable, something happens. The business of science is to give the law, or, if possible, a formula under which such happenings in this or that field may be subsumed. Through what Agency, or by what Activity, it happens science, in so far as naturalistic, does not say; and it should express no opinion, but preserve (if possible) the agnostic attitude.

These preliminaries over we can proceed on our way. Trace briefly the course of events which lead, for example, to the formation of a crystal. What is salient may be thus set down. (1) Certain electronic stuff is in substantial relatedness within sundry and various atoms; (2) some of these atoms selectively form the stuff of certain molecules under a new kind of sub-

stantial relatedness; (3) atoms and molecules are the more complex stuff of the crystal; again under a new kind of substantial relatedness. Resultant re-arrangement, with additive constancy (susceptible of "mechanistic" treatment) runs through the whole process, and gives its own type of continuity. But it does not afford—no resultant treatment can afford—a sufficient interpretation of atoms, or molecules, or crystals; for it disregards the supervenience of a new kind of substantial relatedness—to be accepted with natural piety—at each "critical" stage in the ascending course of events. Each atom, however, after its kind, and each molecule, and each crystal, has intrinsic and specific qualities—spoken of as constitutive—which express its substantial nature. These new qualities we speak of as emergent. We question whether they could be predicted before the advent of any instance of their occurrence—i.e. predicted from the data afforded at the level *below* that at which in due course they emerge. Why, at the "critical" moments of change, new kinds of substantial relatedness are superveniently epigenetic, naturalism does not pretend to say.

Regard now the world at large from a much more comprehensive point of view. We find (1) an array of physico-chemical events; (2) an array of vital events which occur only in organisms; and (3) an array of mental events which occur only in some organisms—those which we commonly speak of as conscious. Our contention is that in vital events there is a new *kind of relatedness* that does not obtain at the lower level of physico-chemical events; and, in mental events, a further kind of relatedness that does not yet obtain in vital events as such. Each kind of relatedness is, as I have put it, substantial and the basis of integral unity. We speak of vitality as an emergent quality of organisms; and perhaps of mentality (not, of course, in the journalistic sense of this much-abused word) as an emergent quality of persons, such as we ourselves are, and of some animals. But vitality or life, and mentality or mind, are, for naturalistic treatment, group-names only. They stand for emergent qualities which need some such names.

One must be content with a bare statement of the position

with emphasis on the concept of emergence. But even at the highest level of emergence we have not left resultant mechanism behind. Mechanical resultants, however, are quite insufficient to account for the genuinely new at these or any other levels of evolutionary advance.

Space does not permit of more than a brief indication of the way in which what many will no doubt regard as an insuperable bar to the acceptance of such a constructive scheme is met on the basis of acknowledged correlation. Set down the progressive advance from (*a*) the physico-chemical, through (*b*) the vital, to (*c*) the mental. The chief bar to its acceptance is the prior acceptance, under the influence of long tradition, of the radical dualism of body and mind. According to dualism the body, as an organic system which is part of the physical world, belongs to an *order of being* quite disparate from that of the mind. These two orders are utterly diverse and are separated in the very essence of their being by an impassable gulf. At best they can co-operate at " solidary " foci of seeming intersection. But, it will be said, the scheme under consideration ignores this gulf, or leaps it in a manner that philosophical criticism easily shows to be quite illegitimate.

Under the acknowledgment of correlation, however, *there is no gulf*—unless it be said that physical events in the organism which are *also* psychical events in the mind are irretrievably separate; and this is merely a re-statement of the counter-acknowledgment of their disparateness in order of being. We are in presence of antithetical acknowledgments—neither of which is susceptible (as I hold) of positive proof or disproof.

Both parties to a long controversy urge that, however it be phrased, our acquaintance with the physical and our acquaintance with the psychical are severally gained in quite different ways. But neither party can, on any such basis, prove either (1) that the physical and the psychical are irretrievably disparate, or (2) that there is one indivisible psycho-physical organism with a distinguishable difference in manner of acquaintance with events therein. One acknowledgment or the other is accepted as something so utterly true as to lie beyond mere

proof. Entertain, then, at least provisionally, *our* acknowledgment of unrestricted correlation, so as to stand for awhile, if possible, in our speculative shoes. How does the scheme then work out?

Although it is convenient to use the word "correlate" for the psychical attribute (to adopt Spinoza's word, which is less ambiguous than "aspect"), it is clear that we may, on equal footing, speak of the physical correlates of psychical events. The scheme then stands thus:

C. Mind (with its physical correlates);
B. Life (with its psychical correlates);
A. Matter (with its psychical correlates).

The point for special emphasis here is that in passing from B to C we openly and avowedly leave the one attribute of psychophysical reality to take up our position in the other. We cross no gulf, for the reality we deal with is indivisibly one. But we do pass from one kind of acquaintanceship with this reality to the other. On this understanding that which lies within brackets is accepted under acknowledged correlation. It is there in natural reality; but it is so to speak out of focus in this or that kind of acquaintance with attributes. Furthermore, what lies in brackets in each case *is* a matter of acknowledgment—i.e. part of a constructive scheme. No *constructive* philosophy can build without foundations—assumptions, presuppositions, or however they be named. These lie in a region beyond positive proof or disproof. We can, as I think, prove neither (1) that there are physical correlates of *all* the mental events with which we are acquainted through Bergsonian "intuition" or Alexandrian "enjoyment"; nor (2) that there are psychical correlates of *all* the physical events which run their course within our bodies. That is just where acknowledgment on the constructive scheme here outlined comes in. In the departmental work of the several branches of science there is no need for it. Hence psychology, in its strictly departmental work, may, and often does, so far as may be convenient for the purpose in hand, ignore all physical correlates; and biology, as in radical behaviourism,

can ignore all psychical correlates. But the professed aim of a constructive philosophy of evolution is to work out a scheme which includes both the physical and the psychical attributes of nature regarded as foundationally one and indivisible. M. Bergson's constructive scheme is quite different, and assuredly does not lack brilliant advocacy. But I am here concerned to present, as best I can, not his scheme, but another.

Many pertinent questions with regard to the concept of emergence, subject always to correlation, will no doubt arise. One only can briefly be considered. It may be asked on what evolutionary grounds the name " mind " is specifically applied to a quality *at an assignable level*, and why the system so " qualitied " is spoken of *par excellence* as " a mind." Should we not, if ubiquitous correlation be acknowledged, speak of the " mind " of an atom, of a molecule, and so on, each after its kind, and perhaps with Fechner, of the mind of the world—i.e. of any integral system, as such, in its psychical regard? Mr. Alexander does broaden the connotation of the word in some such manner for the purposes of his exposition. But he has to safeguard his position by saying, in effect, that he uses the word " mind " in at least two quite different senses. This is only too apt to lead to trouble and confusion. It is better, then, to reserve the word " mind " for that which characterizes a distinguishable level. But if so, it must, as a quality, have some distinguishing criterion. What is it?

To this question my own reply, which, of course, needs elaboration that exigencies of space here preclude, has already been given in Section IV. What we seek is a " critical " turning-point in the advancing course of events. What we find, in interpreting the evidence afforded by the " conditioned response," is provision for conscious anticipation, under revival through acquired neurone-routes, of events that have not yet come by extrinsic influence, e.g. the representative taste-sign of the ladybird before the taste-receptors are actually stimulated. This, I submit, is, at its inception, such a " critical " turning-point as we seek. It is indissolubly psycho-physical; physical, in so far as it provides for " prolептic " action in behaviourist

interpretation ; psychical, in that it provides for " prospective " reference. The suggested criterion of mind therefore is *prospective* reference to that which has come in previous routine, but has not yet come in the given instance of routine ; and guidance in accordance with psychic signs which forestall the events to which they have reference.

VII

In accordance with the emergent plan new kinds of relatedness are supervenient at successive levels of advance, and are accepted on the evidence with natural piety. And the expression of their presence is, in each case, a new intrinsic quality, or set of qualities, and new extrinsic properties due to the interrelations of different systems. But when the new comes, the old does not go. The new supplements the old without superseding it to its annihilation. Hence an integral system which reaches the level of mind does not get quit of its vitality ; nor does an integral system of vital events cease to be also a physico-chemical or material system. One may say, then, that the inherent plan of natural events is such that there is a vital basis of mind and a physico-chemical basis of life. As I phrase it, mind always *involves* vital events, and life *involves* material events.

But the manner in which vital or organic events run their course when mind-relatedness is present is different from that in which they run their course when it is absent. And the go of physico-chemical events in the living organism is other than that in the dead thing wherein life-relatedness no longer obtains. I take it that there is nothing in these statements which is contradictory to the evidence. I speak, then, of the new manner of go of lower-level events in presence of some higher kind of relatedness as *dependent* thereon. Thus life " involves " certain specific physico-chemical events—just what events it is for men of science to determine ; but the way in which these events run their course " depends on " the substantial relatedness of the vital order, whereof the quality of life is the expression.

Just how they go, as dependent on life, it is for men of science to determine. Here, again, there is, I submit, nothing contradictory to such evidence as Dr. J. S. Haldane, for example, has adduced in the course of his illuminating researches.

With regard, then, to an integral system at some given stage of evolutionary advance involution carries our interpretative thought downwards to lower kinds of relatedness which still obtain though in a form that is modified by some higher kind of relatedness. Dependence carries our thought upwards from lower levels to this higher kind of relatedness in presence of which the course of events is so modified as to run in directions that are observably different from those which are followed in its absence. I do not think that there is here anything other than an expression of the generalized outcome of scientific or naturalistic treatment.

As will, I suppose, have been sufficiently obvious, I accept fully and frankly the most thoroughgoing naturalism in the field of science (as I should characterize science), which includes the psychical no less than the physical attribute of natural reality. I accept all that I find with natural piety. What I find is a progressive supervenience of new kinds of relatedness in accordance with an orderly plan. At every stage of advance I find increasing complexity of stuff and richness in substance. At each stage I find something new in the direction of the course of events. The emergent kinds of relatedness, the "critical" turning-points in the advance of nature, the new directions observed, seem, on the evidence, just to come when the intrinsic ground within any system and the extrinsic conditions in relation to other systems are ripe for their advent.

That as I see it is the naturalistic position. On some such terms as these, better expressed and suitably elaborated, scientific policy is, I think, eminently successful. What more, then, can one want? Those who seek to formulate a constructive scheme, have, throughout the history of philosophy, wanted something more. Then What? Something of the nature of a relating and directive Activity of which the *de facto* relatedness and the observed changes of direction (with which science is con-

cerned) are the manifestation. I use the word "Activity" in this sense as the most non-committal name I can select. I write it with a capital letter to differentiate the concept as other than naturalistic. I speak of manifestation because I have often used the word "expression" in a naturalistic sense. I frankly accept Activity under my third acknowledgment—one that supplements, but is nowise contradictory to the concepts of naturalism in its accredited domain.

Those who accept it in some form or other fall into two schools. The teaching of one school is that Activity is inserted into nature at this, that, or the other "critical turning-point" of evolutionary advance—say, at the level of life, or of mind or (with Descartes) of the rational soul. The teaching of the other school, in which I serve, is that Causality (which I should distinguish from the naturalistic causation adverted to above) is the universal operation of Spirit manifested everywhere and everywhen—not only at the level of life, or of mind or of reflective consciousness. There is for us one immanent Causality, of which the whole course of evolution affords diverse manifestations. On these terms the scientific concept of evolution, as epigenetic, may be supplemented (not superseded) by the older philosophical concept of the progressive unfolding *sub specie temporis* of revelations of that Activity which is universally enfolded *sub specie æternitatis*.

But though it is sufficiently non-committal, the concept of Activity is terribly bare and featureless. If, however, we try to bring into relation the naturalistic concept of dependence and that of Activity on which the course of events is Dependent from bottom to top (and beyond if there be further evolutionary advance subject to conditions of time) the latter concept is not the poorest, but the richest of all—rich with a transcendent richness beyond our present grasp.

The space allotted to me is more than exhausted, and I cannot here develop the position thus scarcely more than hinted—a position which naturalists *pur sang* will assuredly reject. Perhaps, however, I may be allowed to add a few sentences.

My colleague, in developing an emergent scheme—Mr. Alexander, to whom I owe so much—speaks of a *nisus* towards " deity " which is in us the highest emergent quality that has as yet been supervenient on lower qualities. It may not at first be clear in what respect this " nisus towards " deity differs from the *de facto* " evolution of " this quality. That it does differ seems to be shown by such a statement as : " The nisus is felt as a nisus toward something unattained." And this something unattained *is* deity in the widest sense—i.e. in any given entity which has a felt nisus towards its unattained goal. Deity in this wide sense (not only deity as a quality in some human folk) is, we are told, " the characteristic quality of the next highest level of existence prophesied by the nisus of the universe which has created " the whole emergent series. Moreover, " the nisus of the whole is shared at any moment by everything within it." Now that which is unattained is from the naturalistic standpoint as yet non-existent, though when the emergent quality of reflective consciousness has been reached there may be anticipation thereof. It is just here that I have difficulty in grasping Mr. Alexander's position. So far as I do grasp it I cannot rest satisfied with it. I want something more. Hence my further acknowledgment of Nisus (with the capital letter) of which the *de facto* nisus is the emergent manifestation ?

With Mr. Alexander's emergent treatment of values I am largely in sympathy. But just as at the naturalistic base of things there is involved a space-time frame, so, too, as I conceive, there is as foundational in Spiritual Reality what I may perhaps call a Value-frame. And just as I acknowledge the space-time-event system as real quite independently of human knowledge thereof, so do I conceive the Values to be Real independently of the human folk who are influenced thereby. In other words, just as we do not make space-time-events, though they go to our making, so, too, as individual persons, we do not make Values, but are made by them.

One last attempt to envisage the position from a slightly different angle. We are nowadays told that under critical

treatment one must dig down to logic as foundational to all interpretation. We are also told, as I understand, that propositional functions are in a valid sense timeless, though instances come and go as the stuff of our current experience. That Activity which I acknowledge is Logos, of which the evolutionary process, logically interpreted, is the manifestation. In fine, what I am striving after is a constructive scheme which shall provide for a physical realism as the limit of involution, and something of at least the same *genre* as Platonic Realism, and the superstructure which since his day has been founded thereon, as the limit of Dependence.

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PAST AND PRESENT IN CONTEMPORARY PHILOSOPHY

By J. H. MUIRHEAD

Born 1855; Glasgow and Balliol College, Oxford; Emeritus Professor of Philosophy in the University of Birmingham

PAST AND PRESENT IN CONTEMPORARY PHILOSOPHY [1]

With the writing of the Preface to this book the office of the editor might have ended and I might have been content for the rest to leave the proper *dramatis personæ* to speak for themselves. My only excuse for adding to it a separate article on my own account, or indeed for appearing in any capacity in such a company, is that I happen to be one of the few now surviving whose life, as a student of philosophy, has on the whole coincided with the great movement of thought in our own country of which the writers in this book are the chief representatives, and which I may be said not only to have "contemplated," but "enjoyed." This gives me the advantage of being able to speak at first hand of the sources of the movement, and tempts, if it does not qualify me, to try to give some estimate both of its achievements and its limitations in so far as it may be taken as one continuous whole.

In the early 'seventies, from which my philosophical memory dates, British thought may be said to have been in the full tide of revolt alike against the common-sense philosophy of Reid and Hamilton and the sensationalism of Mill and Spencer. The pioneers of this revolt belonged, indeed, to an earlier generation. It was a profound discontent with the popular philosophy of his own country that had driven Coleridge further afield to find a metaphysic that could explain and justify the work of the poetic imagination. Already in 1827

[1] What follows, as I have already explained in the Preface, was originally intended as an Introduction to this book.

his younger contemporary Carlyle had recognized the Critical Philosophy as standing "in respect of its probable influence on the moral culture of Europe on a line with the Reformation."[1] Two decades before the one I am speaking of Hutchison Stirling had declared of German philosophy in general and Hegel in particular: "These books are not understood in England, yet require to be understood before any advance is possible," and had set about his long wrestle with the "Secret of Hegel." But it was in the years I speak of that German Idealism began to find a home in British universities and may be said first to have learned to speak to English students in the dialect of their country. There were, of course, die-hards of both of the older schools, but most of the younger men, in Oxford, at least, were, I think, committed more or less to the new ideas. Ardent "Hegelians" from Glasgow met men in Balliol imbued with the more cautious and critical spirit of Green and Nettleship. There was, indeed, a difference in these two currents that went deeper than temperament and training, corresponding roughly to the Kantian distinction between the ideas of the Reason and the categories of the Understanding. While the emphasis in Caird's teaching was always on the ideal unity of all thought and experience, the emphasis in Green tended to fall rather on the working relations by which finite thought carries on its work and on what seemed to him to be implied in this relating activity.[2] But the doctrine and method of each dovetailed into that of the other, and there was no mistaking the general trend of their teaching.

Neither the teaching itself nor the criticism of the prevalent associationism which it carried with it was, as I have already said, a new thing in England. I do not think that there is a point in the Idealism of the 'seventies which was not anticipated, perhaps even better expressed than it has ever been

[1] *Miscellaneous Essays*, vol. i, p. 66.

[2] The general difference of outlook and atmosphere which we experienced in those days when we passed from Caird to Green will best be seen in the latter's criticism of John Caird's *Introduction to the Philosophy of Religions*. See *Works of T. H. Green*, vol. iii, pp. 138 foll.

since, by Coleridge in one place or another of his multifarious writings. What was left to the generation I am speaking of was to familiarize students of philosophy by translation and commentary with the work of Kant and Hegel, and by systematic exposition to complete the work which Coleridge had planned but had let drop from his hands. It was for this reason that with the publication of Green's Introduction to his edition of Hume's *Treatise of Human Nature* (1874) and Caird's *Kant* (1877) a new era seemed to open for British Philosophy.

This "second Oxford movement," as it has been called, while going much deeper, and of a far wider range than the first, had many points in common with it—not least its rapid and phenomenal initial success. There were several reasons for this. One undoubtedly was the exceptional ability of the men who led the movement and who impressed their contemporaries not only by the extent of their scholarship but by the weight of their character and practical experience. If it is true that a man's philosophy is influenced by his own character and temper it is equally true that it is influenced (and even more profoundly) by the character and temper of his teachers. Another and a more important reason was its essential harmony with the deeper spirit of the time. It seemed to provide a philosophical basis for the profound change which for the last half century had been passing over the spirit of the nation and had already expressed itself in new forms of poetry, new canons of literary and æsthetic criticism and new methods of political reform. We shall wholly misunderstand the meaning and significance of the Idealism of the 'seventies if we fail to take it in connexion with the whole Romantic movement of which it seemed to be at once the justification and completion. It is not too much to say that it was its relation to this and the light which it threw upon all that was best in the literature and life of the time that was the real source of the influence of its teaching upon the mind of the generation of which I am speaking. Its critics and opponents had to reckon with no mere academic theory

but with the vital spirit of an era in the history of the nation.

But the very success with which the new philosophy for these reasons met brought its own dangers with it. There was the danger that what to the leaders was a great hypothesis which might be made the starting-point of fresh speculation in logic and metaphysics, ethics, politics and religion, should be accepted by others not as the beginning but as the end of philosophical culture. Connected with this was the even more fatal danger that its formulæ, in becoming the common property of unspeculative minds, should be exploited by them in the interest of established dogma. Philosophy at all times, like science, has had its roots in man's practical needs. To try to sever it from these is to cut it off from the springs of its life. For my own part I find it difficult to understand the mentality of those who would discount a mode of philosophizing because of its harmony with fundamental human instincts or because it enables you to interpret the deeper spirit and assimilate what is of essential truth in the greatest of human traditions. But so far I agree with the critics of the Idealism of that time that it is one thing to seek a justification for fundamental human instincts and to find basal truth in the forms in which they have expressed themselves; it is quite another thing to import the spirit of apologetics or of edification into philosophical discussions.

From these dangers the Idealism of the 'seventies was in the main rescued partly by its own inherent speculative energy, partly by the genius of particular writers. Not to mention others among the contributors to this book, the essays that follow witness throughout to the influence which Mr. Bradley has exercised on the philosophy of our time. The movement of his thought as it passed successively through the stages represented by the *Ethical Studies* of 1876 and the *Principles of Logic* of 1883 to that of *Appearance and Reality* in 1892 raised issues which have engaged all schools of thinkers in England and America for the last quarter of a century. It not only challenged doctrines that to the older Idealism had seemed fundamental, but by the violent reactions it called

forth rekindled latent fires of Empiricism and Realism that threatened its whole basis.[1]

The course which these several movements have taken is familiar to students of philosophy. It represents a veritable "resurrection of metaphysics"[2] in this country. Its story is that of the progress of the thought of a whole generation. I have no intention of following it here. My interest is with the course and general outcome of what I venture to regard as the main stream of that development. Taking the movement as a whole, alike in the affirmations with which it started and the subsequent reactions against them, can we say that any definite position has been won from which further progress may be made? If we seem justified in saying so what precisely is it? What remains further to secure it? On what lines may we expect that future advance will be made, and what are the conditions of such an advance?

I believe that the time has come when these questions may without undue presumption be put and a plain answer to them attempted. I believe that the movement initiated by the men of the 'seventies and 'eighties stood for a principle which is fundamental to philosophy, and that as the smoke of the battle that has raged over it for the last quarter of a century clears away this will become increasingly manifest. But I believe also that the implications of this principle, as well as the terms in which the nature of the ultimate reality, to which this principle points, is to be defined, are extraordinarily difficult to determine. Nevertheless, here, too, certain negative results at least are becoming clear as to the direction in which light is to be sought for on these further questions. Apart from these fundamental metaphysical problems there is an open road for progress in the detailed application of the central

[1] While I think it is true to say that in America the New Realism, equally with Pragmatism, had its origin in a reaction against monistic tendencies in British Idealism (see *The New Realism*, 1912, pp. 1 and 17, and cp. *The Will to Believe, passim*, 1897), the corresponding movement in England and particularly in Cambridge owed too much to Henry Sidgwick and was too much in harmony with the prevailing spirit in that University in these years to permit of so simple a derivation.

[2] The title of Dr. Peter Wust's interesting book on recent philosophy.

principle in the different departments of philosophy. Of these departments perhaps the most difficult—certainly that which in the immediate future is likely to attract a much larger share of attention than in the past—and yet that for which the training of at least one large group of students of philosophy very inadequately prepares them is the philosophy of Nature. For this reason, at least one of the ways in which the present generation can contribute to progress is by endeavouring to secure for its successors a broader kind of philosophical discipline in preparation for its task. The limits of such an article as the present permit only of very condensed observations on these different heads.

1. To make clear what is central in the movement of the 'seventies it is necessary to dissociate it altogether both from the Idealism of Berkeley and Hume, and from the various forms of "New Idealism" in vogue at the present time. The essence of all these types of doctrine is the denial of the reality of any permanent object to which our experience can be said to give us access—anything that is the same amid passing events in the external world or in ourselves. Otherwise put, it is the denial of any power in us to transcend the particular moment in the recognition of an object that passes beyond it and in this sense is universal. Going along with this there is the a fortiori denial of any permanent inclusive totality—any universal of universals—that can be said to be revealed to us in our particular experiences. Instead of this denial of all transcendence what the movement of which I speak stands for was the recognition of the reality of the universal in both these senses: (*a*) There are real objects in the world, permanent, self-identical entities, which give coherence and meaning to our passing experiences; (*b*) There is a real Whole or coherent system of such entities, their felt relation to which is that which gives meaning to the fragmentary experiences of finite minds. This Whole, it was further held, includes Nature and Spirit in such a way that neither can be resolved into the other, but that each may in its own way, though in different degree, be recognized as real. It includes, finally, as part of itself a

time process or history, only truly to be understood as the progressive revelation or " communication " to Spirit in the race and in the individual of its own nature in its fulness and truth.

In developing this thesis Idealism (if that is the proper name for such a doctrine) claimed to be in line with the great classical philosophies from Plato to Hegel. What was central in all of these was the logical priority in human experience (theoretical, moral, æsthetic and religious) of the idea of an order or perfection that goes beyond and supplements the fragmentariness of its time appearances under whatever name this order may be known—that of " the Good," " Reason," " God " as in ancient philosophy, that of the " Infinite," the " Causa Sui," the " Absolute " as in modern. It was indeed the argument from history, as developed particularly by Caird, that so powerfully impressed those who came under his influence. Among other things it seemed to furnish an answer to the accusation of unprogressiveness so constantly brought against philosophy. What has been becoming progressively clear throughout this long history is the precise point in mental life at which this principle manifests itself and the continuity between the various levels of human experience which is established by it. What seemed to be chiefly henceforth required was to carry this central principle into all departments of philosophy and use it as a key to a detailed reconstruction of them. How brilliantly this work was begun in Ethics and Politics by Green and Bradley, in Logic and Metaphysics by Bradley and Bosanquet is now an old story. The more we realize what these writers accomplished the less one wonders that their work seemed to us in the 'eighties and 'nineties to be a fresh and convincing verification of the truth of the idealistic hypothesis, on which it was founded.

It was, of course, just this central principle which was the object of attack in these same years by the opposite schools of Pragmatism and Neo-Realism. But looking back from this distance it is doubtful whether the men who led the attack from either side really understood the position they were assailing, while it would not be difficult to show that these theories themselves, so far as they aimed at offering alternative philosophies

were in reality assuming the existence of just such an "objective control" coming from the ideal of a consistent world of thought and experience as they sought to disown.[1] Be this as it may, I believe that idealists were essentially right in these days and that when the din of the alarums and counter-alarums that has filled our ears in the interval dies away it will be found that a position has been gained from which confident advances may be made.

2. So far, however, critics were justified that the precise form and implications of the idealistic doctrine were left by its leading representatives in considerable ambiguity. Granting that Bradley's Logic and Metaphysic were a verification of the hypothesis, the verification (as Idealism itself teaches) is also a moulding of a theory, and there were those to whom the moulding in this case appeared with some justice to be little short of a total transformation.

The time fortunately is not yet when a general estimate of the work of the most original writer of our time is possible. We are concerned here with the single point of its relation positive and negative to the central contention of Idealism as I have defined it. Even in respect to this I am compelled to speak far more summarily and dogmatically than the subject deserves.

On the positive side perhaps there can be little doubt as to where we have to look for Mr. Bradley's contribution to idealistic theory. We owe, I believe, to him the clearest statement in modern philosophy of the different values that attach to different levels of experience—the doctrine of degrees of perfection, or, in his own language, degrees of reality. It has been said of the older teaching, as represented by T. H. Green, that it "allowed too small an interval between experience specifically moral and specifically religious, and again between human experience and perfection."[2] With certain reservations[3] I think that this on the whole is true, and that the

[1] See, e.g., *Pragmatism*, p. 233; *New Realism*, p. 366; and cp. Bosanquet's *Three Chapters on the Nature of Mind*, esp. p. 143 foll.

[2] Bosanquet, *Aristotelian Society Proceedings*, 1901–2, p. 43.

[3] See, for instance, what Green has himself said in his Works, vol. iii. p. 145 fin.

extension of the scale and the recognition of the intervals, which may now be said to be the common property of idealist writers, is chiefly the result of Mr. Bradley's work. The doctrine of degrees of reality ought not, of course, to have been new to us. It was staring us in the face in Plato and Aristotle, not to speak of Spinoza and Hegel. Mr. Bradley's real service was to have opened our eyes to see it there.

On the negative side, on the other hand, the result has been different. In so far as Mr. Bradley's dialectic, while vindicating the reality of the Absolute as " a single all-inclusive experience which embraces every partial diversity in concord," seems to convict the several elements or levels of finite experience—including self-conscious experience—one and all of internal inconsistency, it may, I think, be said to have met with almost universal dissent among younger writers otherwise in sympathy with idealistic philosophy. I can only state in the shortest way the ground of this dissent with which I find myself in general agreement.

The war against dogmatism and prejudice that has inspired the whole of Mr. Bradley's later work is the very life-blood of philosophy. But the dogmatism it seeks to shake is not that which asserts *the reality of the separate elements* of experience but that which asserts *their separate reality*. The way of attack upon this is to force into prominence, as no one knows better how to do than Mr. Bradley, the idea of totality and the necessity of taking things in their continuity and togetherness. Only so can we escape the contradictions in which all half-truths when taken for the whole necessarily involve us. To attempt any other way, as for instance by seeking to prove *internal* contradiction (if it is possible to attach any clear meaning to such a phrase), is to become entangled in the very abstraction which it is sought to expose, and can only end in a scepticism as dogmatic as the gnosticism that is attacked. It is this point that has been seized upon by the acutest of Mr. Bradley's critics of every school. It was anticipated by Caird when, with all his deference to Mr. Bradley's metaphysical genius, he suggested that such a use of dialectic must in the end be suicidal.[1] It is the

[1] *Life and Philosophy*, p. 188 foll.

truth that underlies the opposite paradoxes of Pragmatism, and attacks such as that of Mr. Russell from the side of Realism on a doctrine which seems to imply the necessary falsity of every stateable truth. It has been worked out with his usual insight and force by Professor Stout in his criticism of the alleged self-contradictions in the concept of relation and of Bradley's theory of judgment.[1] The principle of all these criticisms, as I understand them, is the same as that by which Zenonic paradoxes have been met from the beginning. It consists in pressing the element of continuity or the unity which underlies all differences against the attempt to treat reality, whether it be of a mathematical line or of the world as we find it in nature or in man's mind, as mere discontinuity. Writers like Dr. Stout seem well within their right in pointing to the danger Idealism here runs of placing what we regard ourselves as knowing at the mercy of an " entirely merciless " unknown, and of ending in a form of empiricism as deadly to true knowledge as that from which in the first instance it sought to rescue British philosophy.

What the precise bearing of such an estimate of Mr. Bradley's work is upon the older doctrine of the nature of the Absolute as self-conscious spirit can hardly yet be said to have become clear. It is perhaps the most important issue in metaphysical philosophy at the present time. The bearing of the problem on the theology of the future and through it on the interpretation of religious experience, needs no emphasis. It is no mean advantage to the philosophy of a time and country to have a magnificent endowment devoted by the Gifford Bequest in four of the older universities to free theological research. Splendid as have been the results already achieved in the exploration of the problem as above defined, they are only, I believe, the first fruits of what may hereafter be expected.

What I believe may meanwhile be claimed is that the position which has been won includes the right to look for the type of the unity, transcending and transforming all differences, which underlies and is the logical *prius* of all experience, in the highest

[1] *Arist. Soc. Proceedings*, 1901–2, 1902–3.

and most significant forms of conscious experience—great art, friendship, religion—instead of in an inscrutable and altogether transcendent experience. It is this right that Bosanquet (expressing, I believe, as much the real sense of Bradley's thought as of his own) claims when he declares that a perfect experience must maintain "the positive sense of the self as something which continually passes out of and regains itself." If this is true we may add with him that "there is no hard barrier set that can make our being discontinuous with the perfect experience."[1] Bosanquet would have been the last to claim any finality for his statement of this principle. He believed in progress in philosophy as elsewhere. But he disbelieved in a progress in which "no definite ground is ever recognized as gained." The most hopeful, to my mind the only line of progress in future is that of the consistent application of this central principle to the new problems that are pressing upon us.

3. For a progress of this kind there is abundant room even in these fields in which Idealism in the past has made itself especially at home. British Idealism, like ancient Athenian, may be said to have been primarily and dominantly ethical and political. Yet it may safely be said that there is as yet no work upon the philosophical foundations, any more than upon the detailed interpretation of the moral and political consciousness that at all compares with what has been done by Bradley, Bosanquet, Joachim and others in the field of Logic. Green, of course, knew better than most what was meant by a Metaphysic of Ethics as the vindication of moral freedom; but the whole outlook since his time has been changed by the recognition, increasingly forced upon us by science, of the continuity of human life with nature and environment, and by the necessity of a reinterpretation of the sense in which "self-determination" is related to other forms of the *determinateness* which is the universal character of reality. What is true of ethical, is true of political theory. The reality of the General Will is in politics what the reality

[1] *Principle of Individuality and Value*, pp. xxix and xxxi.

of conscience is in ethics, the reality of system in logic. Green of course borrowing the word from Rousseau put his own stamp upon it, and Bosanquet, among others, did much to enforce and illustrate Green's interpretation of it in the sphere of the State. But as modern psychology has revealed the multiplicity of personalities in the individual so modern political theory has revealed the multiplicity of group wills that cross and interlace with one another in endless variety in society. The task remains for those who hold, I think rightly, to the reality of an underlying consciousness of corporate totality in the human mind to trace its action in the leading types of social union and to establish a Morphology of Society leading up to a view of the State as a highly developed but by no means final form of the social reason.

But I believe that the most difficult and, for the moment, at least, the most pressing of the secular problems that face idealistic philosophy at the present time is concerned with the co-ordination of its leading conceptions with the new ideas in physical science. While Idealism has been strong in the Philosophy of Spirit, its Philosophy of Nature has from the first been somewhat of a scandal; and the training of its leading exponents in this country, it has to be confessed, has not, on the whole, been of a kind that has tended to remove the scandal. Meantime the advances in physical science have raised the concept of Nature into a prominence it has never perhaps possessed since the great days of Galileo and Descartes. It is here that writers (in the main of Cambridge training) have found work to do of inestimable importance to philosophy. That the omens are favourable for such a co-ordination as I have spoken of, recent developments offer good ground for hope. Alike in the work of physicists and biologists the conception of organic interrelation of processes and the reality of the universal in one at least of the senses above referred to are being forced into prominence, and form a natural point of contact with idealistic philosophy. Professor A. N. Whitehead's view of objects as unities or " unit entities which remain self-identical in change "

and are "in a sense out of time," [1] is on all fours with the idealist's recognition of the reality of universals. The same writer in an interesting passage,[2] has claimed the support of philosophers "who insist that reality is a system" for what he modestly calls "the humbler thesis," that "Nature is a system," or, as he elsewhere puts it, that "a scientific object is a systematic correlation of the characters of all events throughout all nature." *Vice versa*, philosophers may claim the support of the "humbler" for the more imposing thesis. In some scientific writers, as in Professor J. S. Haldane,[3] the two doctrines may be said to merge into one.

What form the co-ordination just spoken of will ultimately take remains to be seen. Meantime, it seems to me that it is in forcing this problem to the front and in such constructive suggestions towards its solution as I have quoted that the real contribution of the New Realism to the thought of our time consists. What is of value in it is not the rehabilitation of such common-sense distinctions as those between immediate and mediate, *à priori* and *à posteriori*, necessary and contingent knowledge; still less speculations that would resolve the data of perception into aggregates of perspectives. (The "dance of bloodless categories" for which Idealism has been made responsible finds its counterpart in the dance of invertebrate perspectives to which some realists have sought to reduce the realm of nature). Least of all is its value to be found in the attempt to set up a physical thing-in-itself to which everything else, including life and mind, is adventitious. What seems to me of essential value in the movement is the searching criticism to which presuppositions, hitherto shared by physicists with metaphysicians, as to the ultimate character of external reality are being submitted, and the revolution in our whole conception of physical nature that is likely to be the result. That any

[1] *The Concept of Nature*, Cambridge, 1920, pp. 77 and 78.

[2] *Op. cit.*, pp. 146 and 158. Mr. J. E. Turner, in a manuscript work which I have had the opportunity of reading, has made excellent use of this affinity. It is significant that Dr. Whitehead while refusing to pronounce on the relations between Nature and our awareness of it recognizes the problem of a wider system embracing both.

[3] See *Mechanism, Life and Personality*, Murray, 1913.

"verification" which philosophical theory may find in the results of research in this field will react in modifying the theory itself is again only what we may expect. But the attempt to exploit these results in the interest of a physical Absolutism can only issue, as already is fairly obvious, in bringing home afresh the impossibility of interpreting the concrete world of our experience in terms of any part of it abstracted from its place in the whole. The new philosophy or, as I prefer to think of it, the new extension of the old one, we are safe in saying will be "synoptic." It will seek to do justice to the new conception of nature and the complicated questions that rise out of it as to our apprehension of nature without sacrifice of what I have claimed to have been established by "a plain tale"[1] in the field of spirit.

The chief obstacle to such a philosophy seems to me to come not from any inherent incapacity of thought (ὁ διαλεκτικὸς συνοπτικός and human thought is inherently dialectical) but from the one-sidedness of the education and training of the thinker. The old academy required a matriculation in geometry from its students. In the spacious seminal days of modern philosophy the great metaphysicians were also the great mathematicians. In our own time and country mathematics and metaphysics have scarcely been on speaking terms, or have spoken to each other from different worlds of experience. The most hopeful sign of the present day is a growing consciousness of this defect. Conscious as thinkers approaching philosophy from different angles are of one another's infirmities in this respect, they are also becoming conscious in growing degree of their own. Yet there is still little organized effort to remedy these infirmities in the coming generation. Plato was surely right in recognizing that the complete philosopher could only come out of a complete education and experience. On the other hand a defective education can only issue in a defective and eristic philosophy. Writing in the 'forties of last century John Stuart Mill declared that "the spirit of philosophy in England, like that of religion, is still rootedly

[1] Bosanquet's phrase, *loc. cit.*

sectarian."[1] It seems doubtful whether it has essentially changed in this respect. If it be replied that it is no bad thing that philosophical problems should be approached from different sides by men of different training and experience, this of course, is true. What is bad is that our system of education should make it so difficult to arrive from different sides at any general agreement as to what may by this time be taken for granted and made the starting-point for a new era of progress.

I have tried to show: (1) That the work of thinkers in this country in the early part of the period I have had under review was to reassert the principle of Totality as underlying all knowledge and conduct and so to bring back British philosophy into the main stream of European thought. (2) That while much was left ambiguous subsequent developments in the line of the tradition which they established have done much to clear the issue, and that the true line of progress is to start from the position thus gained. (3) That the work of the present generation lies in the direction of the resolute and consistent endeavour to carry out this principle in the treatment of the new problems that are being forced upon it in all fields of the Philosophy of Spirit and the correlation of it with modern scientific conceptions in a new Philosophy of Nature. (4) I have suggested that, while the older literary equipment, combined with the requisite experience, may suffice for the former of these two tasks, a wider training than is as yet commonly available is necessary for the latter. Such a training is the chief thing necessary to confirm and extend the *entente cordiale* between physics and metaphysics which is the most hopeful sign of the philosophy of the present time.

I have resisted the temptation to seek illustrations of the above view of the course and conditions of progress in contemporary philosophy in the contents of the other essays in this book. It is for the reader to judge how far it finds support in their general tenor.

[1] *Dissertation* on Coleridge.

In the books and articles which I have myself published,[1] what I have sought to do is to show the working of the idea of an inclusive order or world of experience in the life of the individual and of society as the principle of constructive ethics and politics; and in the criticism of other philosophies to find truth in them in so far as they have acknowledged and themselves been guided by it as the dynamic principle in the whole life of finite minds.

[1] Chiefly *Elements of Ethics*, John Murray, 1892 (last Edition, 1910); Articles "Ethics" and "Rights" in *Dictionary of Religion and Ethics*; *German Philosophy in Relation to the War*, John Murray, 1915; *Social Purpose* (with Hetherington), George Allen and Unwin, 1918; *Life and Philosophy of Edward Caird* (with Henry Jones), MacLehose, 1921.

PHILOSOPHY OF NATURE

CARVETH READ

Born 1848; M.A. Cambridge; Emeritus Professor in University of London

BIOGRAPHICAL

To reconstruct the idea of the world is not a modest undertaking, and perhaps few deliberately attempt it; but in some men the conditions and accidents of life, operating upon a reflective spirit, bring about such a reconstruction: beginning obscurely in patches here and there, as amendments to prevalent doctrine, it gradually overspreads and appropriates all the tendencies of their thought; it takes more or less definite form; and then some of them write it out. This was what happened to me. My father and mother were very religious and very tolerant; of the Independent communion, but not of sectarian disposition. The same may be said of my brothers and sisters, and I came far down in the family. In such an household, doctrinal definitions and the consequent doctrinal difficulties are generally appreciated, and any inmate with an inquiring mind and a turn for coherent thinking is liable to become very early a sort of theologian; and that is a sort of philosopher. In those days there was much dread of Geology in relation to the Creation and the Deluge; but these things, irrelevant to Christianity, troubled us not at all. Trouble began with certain doctrines which, as usually presented, were morally impossible.

At my first school (a day-school) I met, at about the age of 9, two boys a little senior who shared with me a passion for Natural History. We collected birds' eggs, moths and butterflies, shells and other "specimens," and projected between us a *Natural History of Cornwall*. My section was to have been the Birds; and there still lies in my desk the preliminary classification I drew up; which was the beginning and also the end of my task; for I was sent to a boarding-school. My sense of scientific veracity was still imperfect; for having conceived a great affection for the Merlin, I could not leave it out of my tables, though well knowing it was no longer to be seen on our coasts. Let this confession at last disburthen my conscience.

At the boarding-school there was no one to sympathize with me in Natural History; but our headmaster, an exceptional man,

had himself a passion for Physics and Chemistry, and indulged his tastes in a small laboratory. These things were no part of the school-work, but he easily became weary of grammar and rudimentary mathematics, and sometimes transferred our class to the laboratory, where we passed happy hours with electric and galvanic apparatus and in the concoction of "stinks." There was not much positive acquisition from these glimpses of natural and physical science; but they awakened in me an interest in such things that has never slept, but has always directed my reading in leisure hours, and determined the character of my thoughts.

At the age of 12 I went to a larger school, where cricket and football soon engrossed me almost to the exclusion for some time of everything else; though somehow a good deal of general information was acquired. Gradually, however, I became the victim of a passion for writing verses which in turn dominated my life, and lasted until it became clear to me that the verses were not poetry, whilst at the same time the reading of technical philosophy changed the colour and pattern of my thoughts. One effect of this obsession of rhyme and rhythm was to make me study the old poets, and another that it confirmed me in a slow habit of composition which has never been shaken off, and which was a great disablement in written examinations and in the attempt I once made to live by journalism. There were, however, about the time of leaving school, intervals in which with mixed feelings of duty, ambition and religious perturbation (needless to describe to those who have gone through it, and useless to those who have not) I read some introductions to philosophy—especially, as I remember, Hume's *Essays* and Maurice's *Moral and Metaphysical Philosophy*. The latter was lent me by my brother Edward, who, earlier, under similar stress, had found a high degree of satisfaction in Maurice's devout but subtle and somewhat impalpable way of thinking. Maurice's presence at Cambridge in the Chair of Moral Philosophy attracted us to that University. My brother took Anglican orders.

At Cambridge, the lectures I recall with most gratitude were those of John Venn on Logic—an admirably lucid exposition of the virtues and vices of Mill's methodology—and Henry Sidgwick's on Ethics and the History of Philosophy. Sidgwick's style and matter were perhaps somewhat too closely woven for lecturing purposes, difficult to get into notes, and too full of memorable things to be remembered without notes; but his scrupulous impartiality was a great lesson in the morals of criticism, and his keen and tireless examination of terms and arguments was

a convincing demonstration of the difficulty of philosophizing, and of its necessity. His analysis of Descartes and Locke made me doubt whether anyone had ever been able to express himself consistently on such matters, or was ever likely to. Sidgwick's books inadequately convey to us the brilliancy and versatility of his genius. He was extremely kind to me in many ways, and I revere his memory. Along with the usual courses of academic study, the reading of Spencer's works did me a great deal of good; for nothing else gives such an impression of the unity of Nature.

After graduating, I could not follow my brother into the Church as had been intended; but Theism still seemed to me the most natural way of understanding the world; and believing that the Unitarian communion might yet be open to me, I obtained a Hibbert travelling scholarship and went to Germany for a couple of years, residing at Leipsic and Heidelberg. The old hospitality of the German Universities is memorable to all who have shared in it, and one of them, at least, cannot believe that our present division from the Fatherland is beyond the power of healing. I was especially attracted by Kuno Fischer and Wundt. Kuno Fischer was an eloquent and brilliant expositor of the history of Philosophy, telling each man's story better than he could himself; but he was not a critic: as you may see in his books, for they are in fact his lectures. Wundt was a most systematic lecturer, rather heavy, but full and thorough. His Psychology was a great advance upon anything then to be had at Cambridge; where that science did not yet greatly flourish. My reading, meanwhile, was chiefly in Kant's imposing synthesis of inventions—establishing a balance of power between science and mysticism, and atoning for fatal destruction by illusory renovation. Next in Schopenhauer; on whom, in the enthusiasm of a first acquaintance, I purposed to write a book; till, on applying the critical method that Sidgwick had taught me, it became too plain that his principles were half-truths and his constructions fallacious. He is the least coherent of modern philosophers; but, considered as literature, his work is by far the most entertaining and stimulating. The result of these and kindred studies was that I no longer thought that Theism (in the usual sense of the term) could be coherently stated and defended; but it was some years before (under the influence of Spinoza and Darwin) an alternative clearly shaped itself for me.

Soon after my return from Germany, Walter Wren engaged me to lecture to candidates for the Indian Civil Service; at first on Logic and Philosophy, later also on Economics and English Literature. It seems too much; but, in fact, the Literature was

such a relief that it made the other work easier. It was said that the students thought so too. In 1903 I was appointed to the Grote Chair of Philosophy at University College, and began to give up my other employments. Of late years most of my time has been given to Psychology and Anthropology. Lecturing from notes, often very scanty ones, there was no result that could be published, and the supposition that has been made that my books, or any portions of them, are transcripts of my lectures is groundless; but in preparing lectures most of the ideas occurred to me from which a selection is given in my books; from which, again, a selection is offered in the following pages.

PHILOSOPHY OF NATURE

§ 1. The many beliefs entertained by a community most people do not reflect upon or question: but contradictions amongst beliefs and disappointments of the expectations they raise are noticed by a few strong minds, and inquiry begins as to their truth. To evalue, confirm or reject, or reconstruct and extend prevailing beliefs is the task of Philosophy. Those that can be made definite, systematically consistent, verifiable by observation and acceptable to competent judges are held to be true; and such we call knowledge, or (in their most elaborate form) science; and whatever is thus recognized becomes a test of other beliefs. Philosophy, comprising at first the rudiments of all science, is by degrees confined to the most general considerations, about which there is least agreement.

Untrue beliefs may, though criticized, survive for ages, because they hold not of experience but of fear and affection: and true beliefs, for some appearance of inconsistency or incoherence, may be attacked and doubted. Our belief in the reality of the world and of the things around us has survived many assaults. It is observed that all things change, some faster, some slower, but that everything at last gives place to something else; and there is a prejudice that the transient cannot be real: that, again, some of the properties of a thing (colour, sound, odour) depend upon the presence of a sensitive witness, and in his absence cannot exist. They are, therefore, transient and conditional, and thus doubly unreal; for there is also a prejudice that the real must be unconditional. Other

properties of a thing (mass, extension, movement) may still seem to be the thing itself everywhere and always, and so to be real. Inferred to be the permanent conditions of transient properties, they are called 'primary,' the transient 'secondary.' But at last the primary qualities are also found to depend (as they are known) upon sensations of pressure and movement, and therefore to be conditional upon the presence of a sensitive subject—transient and unreal. That the real must be permanent and unconditional is a prejudice; for no one can point out any such thing. The transient and conditional is real as long as its conditions exist, and everybody regards it and treats it as real; and the world considered in this simple way I call empirical Reality.

Very little reflection shows that secondary qualities are more conditional and less permanent than the primary; for they depend not only upon a sensitive subject or percipient, but also upon the physical situation: colours disappear with the light though resistances do not, and our own weight is a constant experience. And when investigation shows that secondary qualities depend on the primary, it also shows that they depend upon media between the percipient and things seen or heard.

The pursuit of this investigation, with other related inquiries, leads to beliefs as to the internal structure of resisting, extended things, their granular structure of molecules, atoms, electrons in incessant movement, which can never themselves be perceived; so that we pass out of the region of direct experience into a place of concepts. And this new world is regarded as more real (more permanent and less conditional) than anything that is perceived. Yet its reality depends upon our conceiving it according to the model of things perceived, and upon the possibility of drawing inferences from the conception of it that can be verified in perception: so that empirical Reality is never "explained away" by, or even subordinated to, that which may be called conceptual Reality.[1]

§ 2. All things in the world being analysable into qualities cohering or interfused in definite schemes, each at a certain

[1] *Metaphysics of Nature*, chap. i.–vi. 1905.

place and time, and all qualities being facts perceived (or conceived from perceptions) and grounded in some mode or modes of sensation, are apparently dependent on a percipient. What then becomes of them when not perceived? At night everything beyond our reach is lost. How can the earth have existed before it was inhabited? stars before they were discovered? As it is absurd to doubt that they existed then in some way, we imagine them as if we saw them: but their existence in that way being impossible, we can only think consistently of their existence as one condition of their actuality, needing a percipient to complete it. The degree of actuality to which the world can attain depends upon the capacity of the percipient; so that it very gradually acquired its present empirical extent and riches as animal life developed, and perhaps with better endowed spectators it would be far richer. Nevertheless, the potential state of the world, considered by itself, is supposed to be unconditional, everlasting and universal, and therefore most real—transcendent Reality or Being.

The world as perceived or conceived, being knowable in no other way, has sometimes been supposed to exist only in our minds. But this is a contradiction of experience; for the mind peculiar to each of us stands in contrast with the world that seems common to all. Still, if not in one's own mind, it is in consciousness. Considering any quality, such as the blue of the sky, whether it belongs to the mind or to the world depends on our attitude toward it: we may regard it as objective quality or as subjective sensation. But the difference of attitude, whilst not affecting the quality-sensation as an abstracted experience, does affect its relations; for in one case it stands amongst other qualities of a thing in space, in the other case amongst feelings, ideas, conations not in space. In both cases it is in consciousness; but in the former case it is not in the mind but material; in the latter case it is in the mind or mental.

If one thinks of objects in space as in some manner in the mind, one is apt to suppose that their appearance in space must be due to their having been 'projected' (a word I have

once inadvertently used) at some forgotten date, probably in infancy. But they never were in the mind. The differentiation of consciousness into objective and subjective is to be understood as a process of evolution. Consciousness in the simplest animals may be supposed to be some sort of sensitivity (unlike any that we now know) which is neither subject nor object, neither mental nor material. With advancing life, under different stimuli chemical and mechanical, there arose a variety of sensitive responses; and then occurred an integration on the one hand, of elements which cohered with the sense of movement and resistance, kinæsthetic reactions; on the other hand, of elements associated with the rudiments of pleasure and pain and the cœnæsthesis. Thus appeared object and subject, matter and mind, contrasted regions of experiences following different laws.

One must not pretend to say at what stage of animal life this difference first breaks out: possibly with the beginning of a nervous system in the *Cœlenterata*. It grows very slowly; and the objective field of consciousness is for ages (indeed, until the rise of Man) far in advance of the subjective. A condor floating over foothills of the Andes has, no doubt, a comprehensive and definite view of the material world, but very little mind: for this develops with the variety of feelings, memories, purposes; so that even in an ape it is still very poor, and but little attended to. The perception of the world, then, or object-consciousness, is the greater part of the generic consciousness (the rest is primitive feeling and impulse) common to the higher animals; which is inherited by Man and innate, in the sense that its development in infancy depends upon experience chiefly as stimulus, hardly at all as source; and with very little stimulus (for he is generally asleep) in a short time it matures into as definite a presentation as he will ever know. This presentation differs for each of us, but not enough to prevent our agreeing upon it. Hence, when self-consciousness arises, in his third year, a child finds himself sharing with others in an orderly stable world, which he can hardly imagine himself to have 'projected' and

(normally) cannot suppose to be unreal. But his mind in its individuality is then only beginning to develop.

The stability and order of the object-world are in such strong contrast with the instability and (on a cursory view) the irregularity of the mind, that it is difficult to think that they are inseparable fields of one consciousness. It is a difference in degree of organization as exhibited in the nervous system. The functions of that system's perceptive structures are in great measure automatic; as is necessary for animals whose life depends upon dealing with events in the environment within narrow limits of time. But the structure of the cortex which subserves reflection is very loose, especially in Man, corresponding with the demands of a wider and more complex life, involving remote expectations and memories and a perpetual flicker and recombination of ideas of how to meet his ever-varying circumstances. Thus the objective and subjective fields of consciousness alike are what they are in adaptation to the conditions of animal and human life.[1]

The term 'consciousness' has lately been made such a puzzle that I must explain that here it stands for all ideas, conations, feelings, perceptions, sensations, and the elements or rudiments of these, collectively or distributively: not a faculty by which they are known, nor a 'diaphaneity' in which they float "like pigments in oil." It is only in this way, by denotation, that the term can be elucidated; it cannot be defined by analysis, because the common character of ideas, sensations, etc., is simple. 'Awareness' does not translate it; for of the greater part of consciousness (as we shall see) no mind is aware.[2]

§ 3. Our own consciousness accompanies the highest known organization of matter; and to other animals, vertebrate and invertebrate, we attribute lower degrees of consciousness according to their grades of organization. This is generally accepted as a fact: if asked why fuller consciousness should accompany organization, I can only suggest that organization

[1] *Met. of Nat.*, chap. vii.
[2] *Met. of Nat.*, 2nd ed., app. B.

is the means of bringing elementary processes into effective relation one with another. Many botanists agree with the poets who find some signs of consciousness in plants; for plants have organs analogous with our sense-organs, and respond to appropriate stimuli by purposive movements. In the inorganic world it is generally unrecognized; but as the organic is built on the inorganic, there is no accounting for consciousness in the former unless in the latter it was already present; and experiments have shown that the behaviour of such things as tin or platinum wire, under certain modes of treatment, is remarkably similar to that of plants and animals under the same conditions (Bose). It helps us in this conception of the universality of consciousness in Nature to observe in our own experience degrees in the vividness and distinctness of sensations and feelings and marginal processes. There may be many more degrees beyond our experience, and there is no reason why degrees of consciousness should not be refined as illimitably as the elements of matter. The utmost refinements in either kind may well be related. Still, below some level of organization (say *Cœlenterata*), though there may be many grades of consciousness, we can hardly suppose that it exists as a mind with the subject-object differentiation, or with the differentiation of cognition, feeling, conation.[1]

Some degree of consciousness may be supposed to be related to every movement of every material thing; but what is the relation? We have seen that, for us, a material thing is a phenomenon in the objective consciousness of a subject; in the absence of a subject it is only a state of Being which needs the presence of a subject to actualize it. But the consciousness related to a material thing (mineral, plant or protozoon) is never known to a subject (a subject knows only its own consciousness), and therefore does not depend upon the presence of one. Therefore, in the absence of a subject, it remains with the state of Being which then remains. That is to say, if consciousness is related to every material thing, it appertains universally to the unconditioned and perdurable Being.

[1] *Met. of Nat.*, chap. x. §§ 2–3, and 2nd ed., app. B.

This position solves three problems: First, the relation of the mind to the nervous system. Reflection shows that neither the nervous system nor any structure of it (say the brain) can be the cause of mental processes, sensations, feelings or ideas. Even if changes in the brain could be shown to be the antecedents of conscious processes (which is not the case), they would not be their causes: because the two processes are heterogeneous, and because the energy of changes in the brain is fully equated with physical effects. But if changes in the nervous system are phenomena of changes in Being, and consciousness accompanies those changes in Being, the correlation of brain with mind has a hypothetical justification.

A second problem is presented by what to Biology may seem like the redundancy of consciousness. It has no inertia, mass or motion, cannot be considered as a mode of energy interchangeable with electricity, or heat, or any of the modes that are measurable. It cannot, then, reinforce, or inhibit, or in any way modify the physical changes that go on in the body: all whose processes from stimulus to reaction, however long or winding the chain, may be supposed to go on in the same way whether consciousness be present or not. Hence it has been called an 'epiphenomenon.' Its universal presence in animal, or (to keep to what we know) in human life, cannot be explained by its utility, nor, therefore, by natural selection. May we not, therefore, infer that, since it is everywhere present in human and (as most think) in the higher animal life, and yet is biologically useless, it is there because it is necessary, cannot be left out, an activity of Being which is found wherever Being is manifested, and which rises to self-consciousness wherever animal bodies reach a certain high level of organization.[1]

The third problem is to find the origin of consciousness. Every one believes that a chicken is conscious; very few believe this of a new-laid egg; but some would grant it at one stage or another of the incubation. However, the gradual

[1] *Met. of Nat.*, chap. viii. § 2.

development of the chicken can at no point explain the occurrence of consciousness. Similarly in the animal kingdom, the higher ranks are admitted to be conscious; but it is a common opinion that consciousness exists no lower in the scale than the level at which the presence of associative memory can be proved by an animal's behaviour. Yet the advocates of this opinion do not think that memory (as consciousness) can have any influence upon action; it is not memory-images in the ordinary sense of the words, but 'brain-images' that are supposed to do the work. Thus the "criterion of consciousness" has no meaning, and the limitation of consciousness by evidence of associative memory is arbitrary. If we admit the principle of continuity (*ex nihilo nihil*) for consciousness as we do for the processes of the physical world (and, if not, why not?), there is no escape from the alternative of regarding consciousness as an universal activity of Being, which accompanies inorganic changes, is incorporated with certain molecules in protoplasm and in the simplest organisms, is inherited with the germ-plasm by one organism from another, and grows clearer and richer as organization proceeds.[1]

§ 4. It seems, then, that consciousness must be an essential, universal activity of the world: not of the world as a phenomenon, for that is a construction, or growth, in objective consciousness, and conditional upon the presence of a subject; but of the world as thing-by-itself. If, however, 'thing-by-itself' means the world apart from consciousness, and yet consciousness is an universal character of it, there seems to be a contradiction. The resolution of the difficulty is that, in speaking of the world as 'thing-by-itself,' one means that it is not an *object* in consciousness. The consciousness that is an universal activity of Being or of the world (as inferred from our premises) is undifferentiated, neither subjective nor objective; and, if so, the World or Being is never an object to itself, except so far as minds arise from it to know it as a phenomenon. It is *with* but not *for* consciousness. At least, from the positions taken above, that is all I can infer.

[1] *Met. of Nat.*, chap. x. § 3.

This hypothesis of an everlasting unconditional world with two characters or activities—consciousness and an Other (often called 'force')—is, no doubt, very elusive. From its nature it can never be verified: for verification is either by introspection of our own subjective consciousness, or by perception of the phenomenon; and the 'other' of the world can never be given in either of these ways. In fact, it is not a possible object of knowledge, and (strictly) is never really thought at all. For thought implies relation, and a relation implies two terms. But in any judgment by which we may try to determine the thing-by-itself, there is only one term, namely, some mode of experience, some conscious process or some phenomenon, and this is related to—a void. The thing, therefore, which by itself is only the potentiality of the phenomenon, needing the presence of a subject to actualize it, is not an object of knowledge or science but only of belief. Belief does not require experiential judgments of bilateral relationship; a symbolic word is enough for one of its terms: as we see in popular superstitions that ascribe events to 'magic' or 'animism'; for these are nothing. They are vaguely imagined (like the thing-by-itself) as 'forces'; but we know nothing of forces: our supposed experience of them is merely the sensation of effort—a natural illusion. The old phrases that described the thing-by-itself as a 'substratum,' the 'support' of accidents, or that in which accidents 'inhere,' have the same fault of borrowing all their meaning from relations of phenomena themselves. A judgment concerning the relation of phenomena to the thing-by-itself can never grapple the transcendent term. That term, therefore, seems to denote a superstition rather than knowledge. Nevertheless, I am not disposed to dismiss it to Limbo: superstitions have had important functions in human life; and this one (if it should be so classed) serves the purpose of a symbol (which most people seem to need) of that which is perdurable in the world in the absence of any perceiving subject.

Perhaps another reflection may give it some help. Consciousness is the most certain of all things; the psychological

study of Biology raises a strong probability of its existence in animals even where the differentiation of object and subject can barely have begun; if present at all in the inorganic world (as argued above) it must be undifferentiated. The whole of Nature having been in remote Pre-Cambrian days at that stage (which no one doubts), there was then no object or phenomenon. Therefore, if consciousness existed at all (as continuity requires) it must have belonged to the thing-by-itself; which, therefore, also existed. It may be asked—Why should not consciousness have been self-existent? I do not deny that possibility; but it is never known except as an activity or function: and so (by analogy) the thing-by-itself appeals to our belief as the necessary organ of that function. But, alas! 'organ' is a metaphor from experience.

§ 5. This notion of a perdurable, unconditional, transcendent reality is not constitutive of knowledge or experience: the fag-ends and gaps in experience cannot be patched or bridged with symbolic belief, but only by the ideal extension of experience itself. The unconditional is an indicative idea; it points toward something incomprehensible: an orectic idea of something we desire to grasp, but which is unattainable. It can never be anything but an imperfect idea. Supposing it to represent something, can we give it any content? First, if consciousness is its known activity, it must be related to the subjective experiences of change, succession, time, co-ordination. Secondly, if phenomena are its manifestation, we can hardly help assuming of it something corresponding with space, energy, causation, and may be tempted to follow these assumptions into all the detail of movement and configuration. But this would be merely to duplicate the phenomena. Our inferences from subjective experience, since this is the immediately known activity of the thing-by-itself, are far more secure than from objective experience, since this only represents the thing under the conditions of knowledge.[1]

Cognition depends, empirically, upon a physical stimulus exciting sense-organs and their attachments in the brain (with

[1] *Met. of Nat.*, chap. viii. § 8.

related areas), so that a percept is formed; ontologically, it consists of processes in that portion of Being manifest in the body, accompanied at every stage by their own consciousness, and in the cortex by the definite and regular sensation-pattern which presents an object in space. Volition depends, empirically, upon the subjective representation of a desired end, accompanying a process in the brain, which through motor nerves and muscles (with their own consciousness) effects a mechanical change in the external world; ontologically, the process occurs in the Being of these things. So much to show how the hypothesis works: but it leads to nothing.[1]

If consciousness is an activity of transcendent reality, our own subjective experience is not a phenomenon (though in Psychology it is convenient to call it so), but reality itself (for an activity of anything is the thing itself active). But our objective experience presents the world in phenomena, as the only way of knowing the world so far as it is other than consciousness. Subjective consciousness, therefore, cannot be dependent upon the body as a phenomenon; it is not an epiphenomenon: because the body, as phenomenon, exists only by cognition in objective consciousness.

What, then, is the position of Physiological Psychology? It is based upon inductions concerning the relations between bodily and mental processes, which have already been carried far enough to raise a strong presumption of the universality and constancy of such relations; and the nature of mind is such that without the aid of Physiology there can be no adequate science of it. Mental processes cannot be studied with enough clearness and constancy to yield a thorough continuity of events according to laws. Except in their time-relations, (duration and interval), they have no definite quantity; and so much that is involved in a process is usually (or always) subconscious, that measurement is impossible. To explain the mind which, whilst to some extent common to us all, is also peculiar to each, we turn to that upon which we can agree—physical fact, and often learn there of psychical

[1] *Met. of Nat.*, chap. xi. §8.

functions that are not open to introspection (e.g. of the semicircular canals). Through Physiology, Psychology obtains the aid of the biological retrospect, biological laws and the comparative method. Through our bodies Society exists, and presents the data of Religion, Art, Polity and Morals.[1]

The world, then, is a conscious thing which, in the course of evolution, produces a differentiated consciousness in organized bodies, whereby it knows itself in phenomena, and in Man tends toward ever completer self-knowledge in the only way in which knowledge is possible. That which is universally conscious it would be convenient to call, in antique phrase, the Soul of the World; and the emanation of it, which becomes known as animal body with animal or human mind, would then be the soul of such or such an animal: but this might lead to endless animistic Schwärmerei.

§ 6. A transcendent Being, the consciousness and the agency of the whole world, is (so far) similar to God in the Berkeleyan philosophy; but I see no way, within the limits of Philosophy, of carrying the conception further. For example, the interpretation of Nature, or of History, by final causes seems to lie beyond our power, if we admit that the course of phenomena, alike in the inorganic and organic worlds, agrees with the hypothesis of mechanism, in the sense that every event is determined by "the antecedent configuration of matter and energy"; though the explanation is far enough from completion. I am constitutionally incapable of thinking definitely about phenomena in any other way. But in the interpretation of human life by Ethics, or Politics, or popular reflection, we are guided by the idea of purpose; considering one's own life, it appears that from purpose it derives its continuity and unity. Hence there is a strong prompting to interpret Nature in the same way; especially as we find there innumerable cases of the adaptation of living things to their environment, and that in many ways the environment may be represented as prepared for them. But we are discouraged by finding that interpretations by final causes

[1] *Met. of Nat.*, chap. x. § 7.

(at least, according to the type of human wisdom) are indefinite, fragmentary, and do not make a system; that the cases so explained are inconsistent, being adaptations impartially of good and evil (according to *our* ethics), to community of welfare and to ravin and parasitism; and being also unverifiable, they do not satisfy the criteria of truth. Meanwhile, the origin of adaptations in variation and natural selection is easier to conceive and free from the moral offensiveness of attributing them to purposeful predetermination. There is not room here to treat the matter adequately. Formerly, in discussing it, I spoke of "Kant's suggestion, that in the inwardness of Nature physical and final causation may be the same principle, as the only possible way of reconciliation"; but I have never been able to make this identity intelligible to myself.[1]

And then, turning from the world to the individual, we find that the appearance of purpose in his actions, as a principle independent of antecedent causation, is illusory: for it depends upon our omitting to observe that the idea of any end has itself antecedents in experience, from which it is plainly derived; and that the desire which reinforces it and leads to action, according to one's character, is also an antecedent; and that the cerebral and other physiological processes correlative with the purpose and desire have their antecedents; so that, throughout, the routine of causation is undisturbed.

If we allow ourselves to imagine a purpose of the world within our comprehension, none is more specious than the effort to attain to self-knowledge by the development of more and more highly organized minds; and on this planet, at any rate, there is a manifest tendency to that result in the advance of human understanding. The greater part of mental evolution is intelligible as determined by natural selection. Until we arrive at Man, the intelligence of animals is plainly adapted to the circumstances of their lives, and no more than enough to enable them to obtain food, to propagate, and to avoid enemies. For the most part this is also true of Man; but

[1] *Met. of Nat.*, chap. xv. § 3.

the achievements of some of our species, especially in science and philosophy, are such as cannot be shown, without much ingenuity, to be, by their survival value, ' useful.' They are, however, useful as culture (which has to some men become an end or even the chief good), and they may be imagined (by anyone who thinks it possible) to be a revelation of the World itself to Itself.

§ 7. Imperfect, no doubt: but we also are obliged hitherto to put up with very imperfect self-knowledge. Nothing can be shallower than the human mind's knowledge of itself. This necessarily results from our being at so late a stage of evolution; for the conditions of efficient life require a co-ordination of the bodily organs and of consciousness more and more nearly approaching, at each moment, unity of control. Hence our subjective consciousness proceeds in a narrow file of presentations, which follow one another without our knowing how it happens, any more than we are aware of the mechanism by which our nerves and muscles drive a pen. The presentations, indeed, whether images or words, carry, or (rather) are regulated by, meanings derived from all our past experience; but the greater part of that is forgotten, and much of it (normally) is beyond recall. A symbolic character is common to all grades of cognition—perception, images and words. It is true that special study has done something to illumine the darkness of the *latens schematismus* and *latens processus* of the mind. But consider even a sensation of colour, which seems so simple, yet how great a synthesis it probably represents, developing in correlation with the eye and its central connections. It is reasonable to suppose that every cell that goes to constitute the body has its own consciousness, of which we are never distinctly aware, though each cell may contribute something to our total subjectivity; and even in the central nervous system, with its prepared lines of connection, it is only in the cortex that consciousness becomes identified with ourselves, and only in the focus of attention that it is clear and coherent. If we try to imagine what happens in regions of the mind unconscious to self, whilst ideas are forming before

they are presented, we must consider that each idea is highly complex and implies excitement in widely different parts of the brain, whose co-ordination is correlative with an idea. Until co-ordination is completed the idea does not exist; there are only cerebral tendencies with their elements of the idea in an unknown condition. If completed ideas, of which a man is not conscious, exist in his mind, it must be that a co-ordination of elements has been completed in some region of his cortex which is shut off from the processes concerned in the principal focus of attention; and abnormal cases of plural personality, if co-conscious, seem to imply that two or more foci of attention are active simultaneously. But that "the unconscious" should at any time be full of complete ideas belonging to several systems is not easily conceivable. To that obscure region belong the 'instincts' and 'dispositions' which we call upon to explain behaviour and character; but how or in what form they exist there we do not know.

§ 8. However imperfectly we understand the human mind, we know enough of it to be aware that it holds an extraordinary place in the world, separated apparently by a wide gulf from the mind of the highest types of the Mammalia, to whom our physical relationship is manifest. I have tried to explain the changes, both physical and mental, that have occurred in our rise from among the apes by supposing that, whilst they have remained chiefly (but not exclusively) frugivorous, our own ancestor three or four million years ago betook himself to animal food and to the life of a hunter in order to obtain it. The early hunters banded together in attacking large prey, and so formed a pack (as it were, of wolf-apes), thus becoming gregarious. As animal prey could be found everywhere, they were able to leave the tropical forest, to which the anthropoids are confined, and to roam over all the world. Their bodies underwent the changes which we see to have taken place on comparing ourselves with a gorilla, because they are all advantageous to a hunter. Their minds underwent corresponding changes: becoming more intelligent in the circumventing of prey and, in time, discovering the

uses of weapons and of fire and the ways of preparing them; more co-operative in social life, developing language and submitting to manners. Every human society still has the constitution of the pack with leaders and followers, an object of pursuit, gregariousness, aggressiveness, emulation and suggestibility.

A result of early mental development without the power of distinguishing false from true beliefs, was the growth of imaginations concerning magic and animism: delusions that threatened, and have done, much mischief, but which were strangely turned to good account. The hunting pack was controlled by the superiority of leaders and the fidelity of followers: without which there cannot be a pack. But a time came when hunting was for many tribes no longer the chief means of subsistence, so that the pack lost its utility and its natural organization; and then (as our reports concerning backward peoples seem to prove) the control of the group and its social discipline came to depend upon the acknowledgment by its members of the magical powers of certain individuals (generally old men), whom on that ground they observed and obeyed. At higher stages of culture the power of magic seems to be superseded by that of animism; though in fact a great deal of magic is incorporated with animism. The tribe is then governed by a chief who is believed to be related to, or protected by, ghosts or spirits who have become gods.[1]

The control of primitive men by delusions was necessary because of their incapacity to understand the real reasons for social order and unity, and to desire these things for their utility. The constitution of society by leaders and followers gave advantage to those groups that produced the greatest leaders; and therefore the valuable quality in breeding was not the production of high average endowments, but variability; whereby from time to time a few great men were born, whilst those of the average crowd were merely capable of following (loyal and suggestible), and a tail of defectives completed the population. A low average in character and

[1] *The Origin of Man and of his Superstitions*, chaps. i., ii.

intellect is the mortal disease of our race. Hence there is no clear insight into social conditions, and most of the work of the world is done under the influence of illusory egotistic passions, which nevertheless subserve (however imperfectly) social ends.[1]

§ 9. Society having been established, of all the institutions that maintain its life we may especially consider Art and Morals. From the more primitive peoples we learn that the Fine Arts originate in spontaneous attempts at designing, dancing, singing and mimickry, but that very early they are employed in the service of Magic and Religion: a magical use is generally assigned to the famous cave-paintings of the Old Stone Age; and throughout the world most of the history of the Fine Arts is part of the history of religious institutions that employ them. In the study of Æsthetics this is a necessary consideration.

The tribe or State depends upon order and devotion to its cause; but many of the tribesmen are very imperfectly adapted to fulfil their part. The condition of human life is co-operation qualified by rivalry and self-assertion. So it was in the hunting-pack, and so it remains; though some nations come nearer than others to harmony. To secure order and devotion by force has been impossible for any government; and, therefore, Religion has maintained tribes and states, and the Fine Arts have grown up in support of Religion. They have assisted Religion to subdue mankind by the imagination. Until the last few hundred years nearly all great works of art have been accomplished in the service of gods or of kings (or States) allied with gods: in the building and adorning of temples and palaces the plastic Arts have flourished—Architecture, Sculpture, Painting; and, in the ceremonies therein performed, the rhythmic Arts—Poetry, Music, Dancing. From sporadic, personal, experimental beginnings (persisting in small matters) Art thus became, in its chief manifestations, nationalized and depersonalized. This is the foundation of the greatness of Art, not easy to understand in view merely of its

[1] *Natural and Social Morals*, chap. ii. § 4.

present condition. For as societies advance in stability and amenity most men find in their present worldly lot sufficient motives to maintain order and serve the State; and then Religion loses its political utility and authority, and the Arts lose the utility they had through Religion; and they become (as we see them) once more personalized and denationalized, but with a vast inheritance of skill and learning and prestige, of noble subjects and noble forms of treatment. It remains to be seen what will happen if, with the spread of the modern spirit, new motives entirely supersede Religion, and the great inheritance of the Arts is adapted and exploited for the gratification of the average man.

It was in the great ages that Art acquired the character summed up by Kant in his four moments of æsthetic judgment: It is disinterested; for in national worship, though divine favour be its acknowledged purpose, yet neither artist nor worshipper seeks a private good, and to praise God and honour the king is a spontaneous expression of devotion and loyalty. Hence it has from its origin the form of purpose, but this is lost and forgotten in the performance itself. And judgments of such work are taken to be universal, because the practice is universal. Subjects and methods of treatment, slowly evolved, are by repeated trial adjusted to the national ideas and sentiments, and may remain unchanged for generations. Finally, such judgments, being universal, are felt to be necessary, particularly when subjects and methods have been consecrated by Religion. But if, in a degenerate age, they are disputed, rationally to justify them may be impossible; for they were founded upon sentiment and tradition, not on reason, and have now become personal and subjective judgments.

Similarly, the emotions regarded as specifically æsthetic, sublimity, pathos, beauty (each name covering a wide range of subtle feelings, never twice the same), are the exaltation, terror and affliction of those who celebrated the victories and tragedies of the gods and divine heroes, and the tranquillity of the issue in necessity and acquiescence. Emotions of all

kinds excited by, or generating, the Fine Arts differ in tone and impulse from those of the same name (say fear or rage) as they originally exist as motives to action; and the change of quality must begin early in religious celebration: for when such celebrations are not to lead to further action, it is necessary that the emotions generated in their performance should subside with only an imaginary satisfaction; so that the performance becomes an end in itself. This is one of the alliances of Art with play.[1]

§ 10. Morality is derived from Custom (*some* customs, many having no relevance); and its rudiments appeared earlier than Art; for gregarious animals, whether in herd or pack, have their customs and enforce them. Custom, determining only external observance (that "this is done"), is, so far, non-moral; but in relation to rebellious personal impulses and desires it gradually generates a crude moral consciousness in the fear of penalties or in remorse for trespass. Custom is slow to change, and this is one source of its utility; for so slow, too, is the growth of self-directive character in the bulk of the population that custom remains to this day the chief ground of social stability. But intercourse with other tribes (chiefly) modifies or relaxes its rule, and reflection upon personal conduct gains a certain freedom and influence. Reflection interprets custom and seeks to rationalize it; discovers that merit and demerit depend not merely on observance but upon the intention of the agent; names come into use for virtues and vices, and there is much proverbial wisdom. Religion in most tribes has some concern in enforcing good behaviour; though as it tends to treat religious observances as of equal obligation with moral duties, it is only those religions that conceive of God as definitely moral (presupposing moral ideas) that give effectual aid to morals and deliver moral doctrines. Religion profoundly modifies moral sentiment, and the thought that God sees the heart reinforces conscience. The results of reflection, thus accumulated from custom, popular enlightenment and Religion, supply (with personal ex-

[1] *Natural and Social Morals*, chap. x. on "Art and Morality."

periences) the data which Moral Philosophy has to criticize, define, explain and co-ordinate in some sort of system. It is essentially a study of common-sense, naturally evolved by experience and reflection as the foundation of social welfare. Hence innovation in practical doctrine is rare in Moral Philosophy, and is apt to be regarded with suspicion or even disapproval.[1]

Since human life is purposive, every action aims at some good, and the ground even of divine commandments must be a good above all others, to which good actions are means. The first task of Philosophy is to discover this chief good, which, if found, will explain the nature of good actions and virtues as tending to secure it, and of bad actions and vices as tending to frustrate it; will justify all wise judgments, proverbs and prophetic sentences, as declaring means to this supreme end, and will thus rationalize the whole conduct of life.

Several ends have been proposed as the Chief Good: all of them were put forward at the very beginning of Moral Philosophy and have found adherents ever since. They are Virtue or perfection of character, Philosophy itself, Happiness for oneself or for all the world. It has to be considered which of these gives the best explanation of the data (common-sense and experience) and best co-ordinates our efforts and aspirations. Men have often assumed that these ends are opposed one to another (especially Happiness and Virtue); but for the rationalization of the life of mankind as a whole, they must all be recognized as aspects or factors of the Total Good (*Bonum Consummatum*); because, in fact, different ways of conceiving of the good life are natural to different men and women—there exist moral species: and this is indicated by the spontaneous expression of these doctrines in the beginning and by their persistence from age to age. This position of mine has been called Relativism, but might as justly be described as toleration, which I account a virtue; and it is undeniable that each of the above conceptions of the Chief

[1] *Natural and Social Morals*, chap. vi.

Good has been freely and sincerely held by some men who led exemplary lives. Indeed, the lives that these apparently diverse ends co-ordinate are essentially the same: none of them is inconsistent with the recognized virtues; though one may be more than another favourable to this virtue or to that. And so far as the lives differ, each of them contributes something indispensable to the fulness of the world. Why, therefore, should one be eager to have others adopt one's own view? Who that knows himself can desire that everybody else should be cast in the same mould? Every student of the history of Philosophy must have learnt that whatever he thinks, it is probably wrong.

For my part, I think Philosophy is the most definite and comprehensive End; or since this may seem a narrow, professional term, and few people can be 'philosophers,' to avoid technical limitations, I say Culture, which may be sought by all who have leisure (as all should have): not a miscellany of accomplishments, but including above all the discipline of thought. Thought, besides its own good, is the condition of attaining all other Ends. As applied to the physical world, it obtains the knowledge which facilitates industry, remedies poverty and disease, and may control with inestimable advantage the breeding of mankind; in the social world it may rationalize polity, religion, law and ethics, and by enabling us to understand one another and ourselves, may assuage or bring to an end the dissensions of the nations. But I refer to Aristotle and Spinoza for the praise of Philosophy as the Chief Good. If, trespassing beyond our knowledge, we suppose that the end of Nature is the self-knowledge of the World, it is in Philosophy that this must be realized.[1]

Whatever End be chosen, the goodness of an action consists in its being the necessary means to it, in having a tendency to further the attainment of that end: that is to say, in being the cause, or a causal factor, of that effect. No unconditional rules can be laid down to govern our actions; because, in the complexity of actual life, actions that come under such terms

[1] *Met. of Nat.*, chap. xv. § 4; *Nat. and Soc. Morals*, chap. ii.

of honour as 'Truth' or 'Benevolence' are liable to have their purpose frustrated by injurious circumstances. It is only by conceiving of actions as tendencies to procure the good that we can avoid the appearance of a conflict of duties. Moral reflection upon what we ought to do must discover what is best in view of all the circumstances known to us. Much less can conduct be defined by prohibitions—as "no sensual excess," "no fraud," "no aggression"; for this is to conceal the real question—What (in this case) is excess? fraud? aggression? Until these questions are answered, to forbid such things is tautology, for all these terms connote injurious actions. Such well-meaning negations have suggested the notion that Morality originated in the *taboo*; whereas positive customs are far earlier.

Since Moral Philosophy is a study of Means and Ends, it is a study of causation, and does not differ from the Natural Sciences, except that its investigations are limited by the End. The principle of Prudence—"that a good has the same value in the present or in the future, other conditions being the same"—is absolutely true, because time is not itself a thing or a cause, and (apart from events that happen in it) can make no difference to any effect. Similarly, the principle of Justice—"that what is right for one is right for all"; and of Benevolence—"that the good of one is as important as the good of another"—are true; because abstract individuality (apart from each man's accidents) comprises no difference of causation, and therefore makes no difference to any effect. Moral science, then, if methodically worked out, would present a system of primary and derivative laws of the tendencies of actions to promote the Chief Good. The derivative laws are the subject of Casuistry, now perhaps too much neglected. Hence the moral categories are all defined by causation: Free will is the acting upon one's own choice, one's own character being the decisive condition; Virtue is the quality of a character so far as it is a free cause of good actions; a good action is one that is a necessary means to the chief good; Duty is the necessity of an action in relation to the End under

a sense of obligation that presents no assignable sanction: and so on.[1]

§ 11. The mention of "free will" needs some explanation. It is agreed that, if a man (or his 'will') is not free to choose what, in any case, he shall do, he is not a moral agent. But it is often supposed that human freedom is incompatible with natural law, and that, therefore, the universality of law (which I everywhere assume) is incompatible with a moral life; so that there seems to be a conflict between moral and physical principles. Now every man knows that when choice has to be made between two or more courses of action, he can represent to himself the possibility of adopting any one of them, that he can consider and weigh the consequences of each, and choose the one that seems to him best on the whole; and that, in doing so, he seems to himself a free agent. He forms his own purpose, and in pursuit of it he exerts his own energies. The "testimony of consciousness" in this situation is not dubious; he acts freely according to his own character.

A spectator, however, may doubt whether the agent is not under an illusion. "According to his own character indeed," he may say; "I knew what he would do. His character is the result of heredity and experience; and it is quite settled: his friends trust him every time."

These two judgments of the incident may seem to be contradictory; but they are not, because they are really concerned with different matter. The spectator regards the agent as a moving body, a phenomenon, in relation to past experience of him and to biological principles. The agent does not think of these things, but of future events, over which he has some control, and of his own purpose and impulse. At the moment of choice the causes of the future are present, and the agent is one of them, able by moving his own body to determine (sometimes very disproportionately—having his finger on a trigger) the redistribution of matter and energy. That his character and consequent movements depend upon endless chains of antecedents which have brought affairs to this pass

[1] *Nat. and Soc. Morals*, chap. v.

does not occur to him; and if it did, it would not (if he were sane) affect his action; for what does it matter, seeing that he now prefers X to Y? If mechanical causes were self-conscious—say the piston of an engine—they also would feel free in exerting themselves according to their nature (as everything does), although acting without choice. The consciousness of freedom, therefore, is no illusion, but presents the fact; and instead of being in conflict with causation, it is the consciousness of causation in a self-conscious agent pondering the future.

If, indeed, an agent should suppose that his freedom implied an unconditioned character, there would be illusion.

There are cases in which men feel as if their freedom were encroached upon or destroyed. The responsibility of a moral agent is the practical aspect of his freedom which interests others: it is his liability to be influenced in the moment of choice by foreseeing consequences of his action which will ensue from the behaviour of others, besides those consequences which would ensue (without their intervention) in the course of nature. In its most definite form it becomes legal or juridical; and generally the consequences imposed upon the agent by social or political power are painful or intimidating. The agent, then, in view of these penalties, feels that his freedom is encroached upon; because he now chooses X, though, but for them, he would have preferred Y. But here he is mistaken; penalties imply a limit to his political freedom; but his moral freedom remains. If he chooses X from fear, it is because, in the circumstances, fear is a decisive quality of his character. Apart from that the situation is not compulsive: many men have persisted in what they thought right (or even in self-will) in spite of penalties. Such was their character as free agents.

But this does not imply the least infringement of natural law; because, of course, it is true that character is the product of heredity and personal experience, and on its average stability all social confidence depends. Freedom from natural law implies an uncaused cause, either as original creation, or

as an interruption of the course of nature—a new beginning and (so far) a new creation. This is cosmological freedom, and its occurrence cannot be disproved; but it is irrational, in the sense that it ignores the usual assumptions of reasoning; and also because a genuine judgment concerning the unconditioned cannot be formed, since the place of one of its terms is empty. We have seen that judgments concerning Being have the same fault; but there is this difference, that an unconditioned cause is supposed to intervene amongst phenomena, whereas for Being no such claim is made.

Causation, then, does not impair the sense or the fact of freedom in the moment of choice. But Fate or Predestination, if clearly conceived and believed in, would do so; for according to these doctrines the future does not depend upon our choice: events are already determined, not merely (as causation requires) in course of determination. It is true that few people ever really believe in such things.

That character is the result of heredity and experience is, however, of the utmost significance for those who have to deal with a wrong-doer. Toward such an one the rational attitude of the injured person, or of the State, is profoundly affected by this truth. To understand all is not, indeed, to forgive all, but to seek without passion the wisest remedy. And experience has shown that the results of deterrent example and of schemes of reformation for the individual are disappointing, and that care must be directed to the earliest years of those who are born, and to the breeding of those still unbegotten, and to the elimination of the unadaptable, and to such a reformation of the State as to make every man's experience a continual lesson in the good life.[1] Unfortunately, the reformation of the State and all our other problems continually grow more complex and difficult, whilst there is no corresponding expansion of ability amongst those who undertake to solve them.

[1] *Met. of Nat.*, chap. xv. § 2.

PRINCIPAL PUBLICATIONS

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LOGICAL ATOMISM

BERTRAND RUSSELL

Born 1872; M.A. Cambridge; F.R.S.

LOGICAL ATOMISM

THE philosophy which I advocate is generally regarded as a species of realism, and accused of inconsistency because of the elements in it which seem contrary to that doctrine. For my part, I do not regard the issue between realists and their opponents as a fundamental one; I could alter my view on this issue without changing my mind as to any of the doctrines upon which I wish to lay stress. I hold that logic is what is fundamental in philosophy, and that schools should be characterized rather by their logic than by their metaphysic. My own logic is atomic, and it is this aspect upon which I should wish to lay stress. Therefore I prefer to describe my philosophy as "logical atomism," rather than as "realism," whether with or without some prefixed adjective.

A few words as to historical development may be useful by way of preface. I came to philosophy through mathematics, or rather through the wish to find some reason to believe in the truth of mathematics. From early youth, I had an ardent desire to believe that there can be such a thing as knowledge, combined with a great difficulty in accepting much that passes as knowledge. It seemed clear that the best chance of finding indubitable truth would be in pure mathematics, yet some of Euclid's axioms were obviously doubtful, and the infinitesimal calculus, as I was taught it, was a mass of sophisms, which I could not bring myself to regard as anything else. I saw no reason to doubt the truth of arithmetic, but I did not then know that arithmetic can be made to embrace all traditional pure mathematics. At the age of eighteen I read Mill's *Logic*, but was profoundly dissatisfied with his reasons for accepting

arithmetic and geometry. I had not read Hume, but it seemed to me that pure empiricism (which I was disposed to accept) must lead to scepticism rather than to Mill's support of received scientific doctrines. At Cambridge I read Kant and Hegel, as well as Mr. Bradley's *Logic*, which influenced me profoundly. For some years I was a disciple of Mr. Bradley, but about 1898 I changed my views, largely as a result of arguments with G. E. Moore. I could no longer believe that knowing makes any difference to what is known. Also I found myself driven to pluralism. Analysis of mathematical propositions persuaded me that they could not be explained as even partial truths unless one admitted pluralism and the reality of relations. An accident led me at this time to study Leibniz, and I came to the conclusion (subsequently confirmed by Couturat's masterly researches) that many of his most characteristic opinions were due to the purely logical doctrine that every proposition has a subject and a predicate. This doctrine is one which Leibniz shares with Spinoza, Hegel, and Mr. Bradley; it seemed to me that, if it is rejected, the whole foundation for the metaphysics of all these philosophers is shattered. I therefore returned to the problem which had originally led me to philosophy, namely, the foundations of mathematics, applying to it a new logic derived largely from Peano and Frege, which proved (at least, so I believe) far more fruitful than that of traditional philosophy.

In the first place, I found that many of the stock philosophical arguments about mathematics (derived in the main from Kant) had been rendered invalid by the progress of mathematics in the meanwhile. Non-Euclidean geometry had undermined the argument of the transcendental æsthetic. Weierstrass had shown that the differential and integral calculus do not require the conception of the infinitesimal, and that, therefore, all that had been said by philosophers on such subjects as the continuity of space and time and motion must be regarded as sheer error. Cantor freed the conception of infinite number from contradiction, and thus disposed of Kant's antinomies as well as many of Hegel's. Finally Frege showed

in detail how arithmetic can be deduced from pure logic, without the need of any fresh ideas or axioms, thus disproving Kant's assertion that "$7 + 5 = 12$" is synthetic—at least in the obvious interpretation of that dictum. As all these results were obtained, not by any heroic method, but by patient detailed reasoning, I began to think it probable that philosophy had erred in adopting heroic remedies for intellectual difficulties, and that solutions were to be found merely by greater care and accuracy. This view I have come to hold more and more strongly as time went on, and it has led me to doubt whether philosophy, as a study distinct from science and possessed of a method of its own, is anything more than an unfortunate legacy from theology.

Frege's work was not final, in the first place because it applied only to arithmetic, not to other branches of mathematics; in the second place because his premises did not exclude certain contradictions to which all past systems of formal logic turned out to be liable. Dr. Whitehead and I in collaboration tried to remedy these two defects, in *Principia Mathematica*, which, however, still falls short of finality in some fundamental points (notably the axiom of reducibility). But in spite of its shortcomings I think that no one who reads this book will dispute its main contention, namely, that from certain ideas and axioms of formal logic, by the help of the logic of relations, all pure mathematics can be deduced, without any new undefined idea or unproved propositions. The technical methods of mathematical logic, as developed in this book, seem to me very powerful, and capable of providing a new instrument for the discussion of many problems that have hitherto remained subject to philosophic vagueness. Dr. Whitehead's *Concept of Nature* and *Principles of Natural Knowledge* may serve as an illustration of what I mean.

When pure mathematics is organized as a deductive system —i.e. as the set of all those propositions that can be deduced from an assigned set of premises—it becomes obvious that, if we are to believe in the truth of pure mathematics, it cannot be solely because we believe in the truth of the set of

premises. Some of the premises are much less obvious than some of their consequences, and are believed chiefly because of their consequences. This will be found to be always the case when a science is arranged as a deductive system. It is not the logically simplest propositions of the system that are the most obvious, or that provide the chief part of our reasons for believing in the system. With the empirical sciences this is evident. Electro-dynamics, for example, can be concentrated into Maxwell's equations, but these equations are believed because of the observed truth of certain of their logical consequences. Exactly the same thing happens in the pure realm of logic; the logically first principles of logic—at least some of them—are to be believed, not on their own account, but on account of their consequences. The epistemological question: "Why should I believe this set of propositions?" is quite different from the logical question: "What is the smallest and logically simplest group of propositions from which this set of propositions can be deduced?" Our reasons for believing logic and pure mathematics are, in part, only inductive and probable, in spite of the fact that, in their *logical* order, the propositions of logic and pure mathematics follow from the premises of logic by pure deduction. I think this point important, since errors are liable to arise from assimilating the logical to the epistemological order, and also, conversely, from assimilating the epistemological to the logical order. The only way in which work on mathematical logic throws light on the truth or falsehood of mathematics is by disproving the supposed antinomies. This shows that mathematics *may* be true. But to show that mathematics *is* true would require other methods and other considerations.

One very important heuristic maxim which Dr. Whitehead and I found, by experience, to be applicable in mathematical logic, and have since applied in various other fields, is a form of Ockham's razor. When some set of supposed entities has neat logical properties, it turns out, in a great many instances, that the supposed entities can be replaced by purely logical structures composed of entities which have not such neat

properties. In that case, in interpreting a body of propositions hitherto believed to be about the supposed entities, we can substitute the logical structures without altering any of the detail of the body of propositions in question. This is an economy, because entities with neat logical properties are always inferred, and if the propositions in which they occur can be interpreted without making this inference, the ground for the inference fails, and our body of propositions is secured against the need of a doubtful step. The principle may be stated in the form: "Wherever possible, substitute constructions out of known entities for inferences to unknown entities."

The uses of this principle are very various, but are not intelligible in detail to those who do not know mathematical logic. The first instance I came across was what I have called "the principle of abstraction," or "the principle which dispenses with abstraction."[1] This principle is applicable in the case of any symmetrical and transitive relation, such as equality. We are apt to infer that such relations arise from possession of some common quality. This may or may not be true; probably it is true in some cases and not in others. But all the formal purposes of a common quality can be served by membership of the group of terms having the said relation to a given term. Take magnitude, for example. Let us suppose that we have a group of rods, all equally long. It is easy to suppose that there is a certain quality, called their length, which they all share. But all propositions in which this supposed quality occurs will retain their truth-value unchanged if, instead of "length of the rod x" we take "membership of the group of all those rods which are as long as x." In various special cases—e.g. the definition of real numbers—a simpler construction is possible.

A very important example of the principle is Frege's definition of the cardinal number of a given set of terms as the class of all sets that are "similar" to the given set—where two sets are "similar" when there is a one-one relation whose domain is the one set and whose converse domain is

[1] *External World*, p. 42.

the other. Thus a cardinal number is the class of all those classes which are similar to a given class. This definition leaves unchanged the truth-values of all propositions in which cardinal numbers occur, and avoids the inference to a set of entities called "cardinal numbers," which were never needed except for the purpose of making arithmetic intelligible, and are now no longer needed for that purpose.

Perhaps even more important is the fact that classes themselves can be dispensed with by similar methods. Mathematics is full of propositions which seem to require that a class or an aggregate should be in some sense a single entity—e.g. the proposition "the number of combinations of n things any number at a time is 2^n." Since 2^n is always greater than n, this proposition leads to difficulties if classes are admitted because the number of classes of entities in the universe is greater than the number of entities in the universe, which would be odd if classes were some among entities. Fortunately, all the propositions in which classes appear to be mentioned can be interpreted without supposing that there are classes. This is perhaps the most important of all the applications of our principle. (See *Principia Mathematica*, *20.)

Another important example concerns what I call "definite descriptions," i.e. such phrases as "the even prime," "the present King of England," "the present King of France." There has always been a difficulty in interpreting such propositions as "the present King of France does not exist." The difficulty arose through supposing that "the present King of France" is the subject of this proposition, which made it necessary to suppose that he subsists although he does not exist. But it is difficult to attribute even subsistence to "the round square" or "the even prime greater than 2." In fact, "the round square does not subsist" is just as true as "the present King of France does not exist." Thus the distinction between existence and subsistence does not help us. The fact is that, when the words "the so-and-so" occur in a proposition, there is no corresponding single constituent of the proposition, and when the proposition is fully analysed the

words " the so-and-so " have disappeared. An important consequence of the theory of descriptions is that it is meaningless to say " A exists " unless " A " is (or stands for) a phrase of the form " the so-and-so." If the so-and-so exists, and x is the so-and-so, to say " x exists " is nonsense. Existence, in the sense in which it is ascribed to single entities, is thus removed altogether from the list of fundamentals. The ontological argument and most of its refutations are found to depend upon bad grammar. (See *Principia Mathematica*, *14.)

There are many other examples of the substitution of constructions for inferences in pure mathematics, for example, series, ordinal numbers, and real numbers. But I will pass on to the examples in physics.

Points and instants are obvious examples: Dr. Whitehead has shown how to construct them out of sets of events all of which have a finite extent and a finite duration. In relativity theory, it is not points or instants that we primarily need, but event-particles, which correspond to what, in older language, might be described as a point at an instant, or an instantaneous point. (In former days, a point of space endured throughout all time, and an instant of time pervaded all space. Now the unit that mathematical physics wants has neither spatial nor temporal extension.) Event-particles are constructed by just the same logical process by which points and instants were constructed. In such constructions, however, we are on a different plane from that of constructions in pure mathematics. The possibility of constructing an event-particle depends upon the existence of sets of events with certain properties; whether the required events exist can only be known empirically, if at all. There is therefore no *à priori* reason to expect continuity (in the mathematical sense), or to feel confident that event-particles can be constructed. If the quantum theory should seem to demand a discrete space-time, our logic is just as ready to meet its requirements as to meet those of traditional physics, which demands continuity. The question is purely empirical, and our logic is (as it ought to be) equally adapted to either alternative.

Similar considerations apply to a particle of matter, or to a piece of matter of finite size. Matter, traditionally, has two of those "neat" properties which are the mark of a logical construction; first, that two pieces of matter cannot be at the same place at the same time; secondly, that one piece of matter cannot be in two places at the same time. Experience in the substitution of constructions for inferences makes one suspicious of anything so tidy and exact. One cannot help feeling that impenetrability is not an empirical fact, derived from observation of billiard-balls, but is something logically necessary. This feeling is wholly justified, but it could not be so if matter were not a logical construction. An immense number of occurrences coexist in any little region of space-time; when we are speaking of what is not logical construction, we find no such property as impenetrability, but, on the contrary, endless overlapping of the events in a part of space-time, however small. The reason that matter is impenetrable is because our definitions make it so. Speaking roughly, and merely so as to give a notion of how this happens, we may say that a piece of matter is all that happens in a certain track in space-time, and that we construct the tracks called bits of matter in such a way that they do not intersect. Matter is impenetrable because it is easier to state the laws of physics if we make our constructions so as to secure impenetrability. Impenetrability is a logically necessary result of definition, though the fact that such a definition is convenient is empirical. Bits of matter are not among the bricks out of which the world is built. The bricks are events, and bits of matter are portions of the structure to which we find it convenient to give separate attention.

In the philosophy of mental occurrences there are also opportunities for the application of our principle of constructions *versus* inferences. The subject, and the relation of a cognition to what is known, both have that schematic quality that arouses our suspicions. It is clear that the subject, if it is to be preserved at all, must be preserved as a construction, not as an inferred entity; the only question is whether the

subject is sufficiently useful to be worth constructing. The relation of a cognition to what is known, again, cannot be a straightforward single ultimate, as I at one time believed it to be. Although I do not agree with pragmatism, I think William James was right in drawing attention to the complexity of "knowing." It is impossible in a general summary, such as the present, to set out the reasons for this view. But whoever has acquiesced in our principle will agree that here is *prima facie* a case for applying it. Most of my *Analysis of Mind* consists of applications of this principle. But as psychology is scientifically much less perfected than physics, the opportunities for applying the principle are not so good. The principle depends, for its use, upon the existence of some fairly reliable body of propositions, which are to be interpreted by the logician in such a way as to preserve their truth while minimizing the element of inference to unobserved entities. The principle therefore presupposes a moderately advanced science, in the absence of which the logician does not know what he ought to construct. Until recently, it would have seemed necessary to construct geometrical points; now it is event-particles that are wanted. In view of such a change in an advanced subject like physics, it is clear that constructions in psychology must be purely provisional.

I have been speaking hitherto of what it is *not* necessary to assume as part of the ultimate constituents of the world. But logical constructions, like all other constructions, require materials, and it is time to turn to the positive question, as to what these materials are to be. This question, however, requires as a preliminary a discussion of logic and language and their relation to what they try to represent.

The influence of language on philosophy has, I believe, been profound and almost unrecognized. If we are not to be misled by this influence, it is necessary to become conscious of it, and to ask ourselves deliberately how far it is legitimate. The subject-predicate logic, with the substance-attribute metaphysic, are a case in point. It is doubtful whether either would have been invented by people speaking a non-Aryan

language; certainly they do not seem to have arisen in China, except in connection with Buddhism, which brought Indian philosophy with it. Again, it is natural, to take a different kind of instance, to suppose that a proper name which can be used significantly stands for a single entity; we suppose that there is a certain more or less persistent being called "Socrates," because the same name is applied to a series of occurrences which we are led to regard as appearances of this one being. As language grows more abstract, a new set of entities come into philosophy, namely, those represented by abstract words—the universals. I do not wish to maintain that there are no universals, but certainly there are many abstract words which do not stand for single universals—e.g. triangularity and rationality. In these respects language misleads us both by its vocabulary and by its syntax. We must be on our guard in both respects if our logic is not to lead to a false metaphysic.

Syntax and vocabulary have had different kinds of effects on philosophy. Vocabulary has most influence on common sense. It might be urged, conversely that common sense produces our vocabulary. This is only partially true. A word is applied at first to things which are more or less similar, without any reflection as to whether they have any point of identity. But when once usage has fixed the objects to which the word is to be applied, common sense is influenced by the existence of the word, and tends to suppose that one word must stand for one object, which will be a universal in the case of an adjective or an abstract word. Thus the influence of vocabulary is towards a kind of platonic pluralism of things and ideas.

The influence of syntax, in the case of the Indo-European languages, is quite different. Almost any proposition can be put into a form in which it has a subject and a predicate, united by a copula. It is natural to infer that every fact has a corresponding form, and consists in the possession of a quality by a substance. This leads, of course, to monism, since the fact that there were several substances (if it were a

fact) would not have the requisite form. Philosophers, as a rule, believe themselves free from this sort of influence of linguistic forms, but most of them seem to me to be mistaken in this belief. In thinking about abstract matters, the fact that the words for abstractions are no more abstract than ordinary words always makes it easier to think about the words than about what they stand for, and it is almost impossible to resist consistently the temptation to think about the words.

Those who do not succumb to the subject-predicate logic are apt to get only one step further, and admit relations of two terms, such as before-and-after, greater-and-less, right-and-left. Language lends itself to this extension of the subject-predicate logic, since we say "A precedes B," "A exceeds B," and so on. It is easy to prove that the fact expressed by a proposition of this sort cannot consist of the possession of a quality by a substance, or of the possession of two or more qualities by two or more substances. (See *Principles of Mathematics*, § 214.) The extension of the subject-predicate logic is therefore right so far as it goes, but obviously a further extension can be proved necessary by exactly similar arguments. How far it is necessary to go up the series of three-term, four-term, five-term . . . relations I do not know. But it is certainly necessary to go beyond two-term relations. In projective geometry, for example, the order of points on a line or of planes through a line requires a four-term relation.

A very unfortunate effect of the peculiarities of language is in connection with adjectives and relations. All words are of the same logical type; a word is a class of series, of noises or shapes according as it is heard or read. But the meanings of words are of various different types; an attribute (expressed by an adjective) is of a different type from the objects to which it can be (whether truly or falsely) attributed; a relation (expressed perhaps by a preposition, perhaps by a transitive verb, perhaps in some other way) is of a different type from the terms between which it holds or does not hold. The definition of a logical type is as follows: A and B are of

the same logical type if, and only if, given any fact of which A is a constituent, there is a corresponding fact which has B as a constituent, which either results by substituting B for A, or is the negation of what so results. To take an illustration, Socrates and Aristotle are of the same type, because "Socrates was a philosopher" and "Aristotle was a philosopher" are both facts; Socrates and Caligula are of the same type, because "Socrates was a philosopher" and "Caligula was not a philosopher" are both facts. To love and to kill are of the same type, because "Plato loved Socrates" and "Plato did not kill Socrates" are both facts. It follows formally from the definition that, when two words have meanings of different types, the relations of the words to what they mean are of different types; that is to say, there is not one relation of meaning between words and what they stand for, but as many relations of meaning, each of a different logical type, as there are logical types among the objects for which there are words. This fact is a very potent source of error and confusion in philosophy. In particular, it has made it extraordinarily difficult to express in words any theory of relations which is logically capable of being true, because language cannot preserve the difference of type between a relation and its terms. Most of the arguments for and against the reality of relations have been vitiated through this source of confusion.

At this point, I propose to digress for a moment, and to say, as shortly as I can, what I believe about relations. My own views on the subject of relations in the past were less clear than I thought them, but were by no means the views which my critics supposed them to be. Owing to lack of clearness in my own thoughts, I was unable to convey my meaning. The subject of relations is difficult, and I am far from claiming to be now clear about it. But I think certain points are clear to me. At the time when I wrote *The Principles of Mathematics*, I had not yet seen the necessity of logical types. The doctrine of types profoundly affects logic, and I think shows what, exactly, is the valid element in the arguments of those who oppose "external" relations. But so far from strengthen-

ing their main position, the doctrine of types leads, on the contrary, to a more complete and radical atomism than any that I conceived to be possible twenty years ago. The question of relations is one of the most important that arise in philosophy, as most other issues turn on it: monism and pluralism; the question whether anything is wholly true except the whole of truth, or wholly real except the whole of reality; idealism and realism, in some of their forms; perhaps the very existence of philosophy as a subject distinct from science and possessing a method of its own. It will serve to make my meaning clear if I take a passage in Mr. Bradley's *Essays on Truth and Reality*, not for controversial purposes, but because it raises exactly the issues that ought to be raised. But first of all I will try to state my own view, without argument.[1]

Certain contradictions—of which the simplest and oldest is the one about Epimenides the Cretan, who said that all Cretans were liars, which may be reduced to the man who says "I am lying"—convinced me, after five years devoted mainly to this one question, that no solution is technically possible without the doctrine of types. In its technical form, this doctrine states merely that a word or symbol may form part of a significant proposition, and in this sense have meaning, without being always able to be substituted for another word or symbol in the same or some other proposition without producing nonsense. Stated in this way, the doctrine may seem like a truism. "Brutus killed Cæsar" is significant, but "Killed killed Cæsar" is nonsense, so that we cannot replace "Brutus" by "killed," although both words have meaning. This is plain common sense, but unfortunately almost all philosophy consists in an attempt to forget it. The following words, for example, by their very nature, sin against it: attribute, relation, complex, fact, truth, falsehood, not, liar, omniscience. To give a meaning to these words, we have to make a détour

[1] I am much indebted to my friend Wittgenstein in this matter. See his *Tractatus Logico-Philosophicus*, Kegan Paul, 1922. I do not accept all his doctrines, but my debt to him will be obvious to those who read his book.

by way of words or symbols and the different ways in which they may mean; and even then, we usually arrive, not at one meaning, but at an infinite series of different meanings. Words, as we saw, are all of the same logical type; therefore when the meanings of two words are of different types, the relations of the two words to what they stand for are also of different types. Attribute-words and relation-words are of the same type, therefore we can say significantly "attribute-words and relation-words have different uses." But we cannot say significantly "attributes are not relations." By our definition of types, since relations are relations, the form of words attributes are relations" must be not false, but meaningless, and the form of words "attributes are not relations," similarly, must be not true, but meaningless. Nevertheless, the statement "attribute-words are not relation-words" is significant and true.

We can now tackle the question of internal and external relations, remembering that the usual formulations, on both sides, are inconsistent with the doctrine of types. I will begin with attempts to state the doctrine of external relations. It is useless to say "terms are independent of their relations," because "independent" is a word which means nothing. Two events may be said to be causally independent when no causal chain leads from one to the other; this happens, in the special theory of relativity, when the separation between the events is space-like. Obviously this sense of "independent" is irrelevant. If, when we say "terms are independent of their relations," we mean "two terms which have a given relation would be the same if they did not have it," that is obviously false; for, being what they are, they have the relation, and therefore whatever does not have the relation is different. If we mean—as opponents of external relations suppose us to mean—that the relation is a third term which comes between the other two terms and is somehow hooked on to them, that is obviously absurd, for in that case the relation has ceased to be a relation, and all that is truly relational is the hooking of the relation to the terms. The conception of the relation

as a third term between the other two sins against the doctrine of types, and must be avoided with the utmost care.

What, then, can we mean by the doctrine of external relations? Primarily this, that a relational proposition is not, in general, logically equivalent formally to one or more subject-predicate propositions. Stated more precisely: Given a relational propositional function "xRy," it is not in general the case that we can find predicates α, β, γ, such that, for all values of x and y, xRy is equivalent to $x\alpha$, $y\beta$, $(x, y)\gamma$ (where (x, y) stands for the whole consisting of x and y), or to any one or two of these. This, and this only, is what I mean to affirm when I assert the doctrine of external relations; and this, clearly, is at least part of what Mr. Bradley denies when he asserts the doctrine of internal relations.

In place of "unities" or "complexes," I prefer to speak of "facts." It must be understood that the word "fact" cannot occur significantly in any position in a sentence where the word "simple" can occur significantly, nor can a fact occur where a simple can occur. We must not say "facts are not simples." We can say, "The symbol for a fact must not replace the symbol for a simple, or vice versa, if significance is to be preserved." But it should be observed that, in this sentence, the word "for" has different meanings on the two occasions of its use. If we are to have a language which is to safeguard us from errors as to types, the symbol for a fact must be a proposition, not a single word or letter. Facts can be asserted or denied, but cannot be named. (When I say "facts cannot be named," this is, strictly speaking, nonsense. What can be said without falling into nonsense is: "The symbol for a fact is not a name.") This illustrates how meaning is a different relation for different types. The way to mean a fact is to assert it; the way to mean a simple is to name it. Obviously naming is different from asserting, and similar differences exist where more advanced types are concerned, though language has no means of expressing the differences.

There are many other matters in Mr. Bradley's examination

of my views which call for reply. But as my present purpose is explanatory rather than controversial, I will pass them by, having, I hope, already said enough on the question of relations and complexes to make it clear what is the theory that I advocate. I will only add, as regards the doctrine of types, that most philosophers assume it now and then, and few would deny it, but that all (so far as I know) avoid formulating it precisely or drawing from it those deductions that are inconvenient for their systems.

I come now to some of Mr. Bradley's criticisms (*loc. cit* p. 280 ff.). He says :—

" Mr. Russell's main position has remained to myself incomprehensible. On the one side I am led to think that he defends a strict pluralism, for which nothing is admissible beyond simple terms and external relations. On the other side Mr. Russell seems to assert emphatically, and to use throughout, ideas which such a pluralism surely must repudiate. He throughout stands upon unities which are complex and which cannot be analysed into terms and relations. These two positions to my mind are irreconcilable, since the second, as I understand it, contradicts the first flatly."

With regard to external relations, my view is the one I have just stated, not the one commonly imputed by those who disagree. But with regard to unities, the question is more difficult. The topic is one with which language, by its very nature, is peculiarly unfitted to deal. I must beg the reader, therefore, to be indulgent if what I say is not exactly what I mean, and to try to see what I mean in spite of unavoidable linguistic obstacles to clear expression.

To begin with, I do not believe that there are complexes or unities in the same sense in which there are simples. I did believe this when I wrote *The Principles of Mathematics*, but, on account of the doctrine of types, I have since abandoned this view. To speak loosely, I regard simples and complexes as always of different types. That is to say, the statements " There are simples " and " There are complexes " use the words " there are " in different senses. But if I use the words

" there are " in the sense which they have in the statement " there are simples," then the form of words " there are not complexes " is neither true nor false, but meaningless. This shows how difficult it is to say clearly, in ordinary language, what I want to say about complexes. In the language of mathematical logic it is much easier to say what I want to say, but much harder to induce people to understand what I mean when I say it.

When I speak of " simples " I ought to explain that I am speaking of something not experienced as such, but known only inferentially as the limit of analysis. It is quite possible that, by greater logical skill, the need for assuming them could be avoided. A logical language will not lead to error if its simple symbols (i.e. those not having any parts that are symbols, or any significant structure) all stand for objects of some one type, even if these objects are not simple. The only drawback to such a language is that it is incapable of dealing with anything simpler than the objects which it represents by simple symbols. But I confess it seems obvious to me (as it did to Leibniz) that what is complex must be composed of simples, though the number of constituents may be infinite. It is also obvious that the logical uses of the old notion of substance (i.e. those uses which do not imply temporal duration) can only be applied, if at all, to simples; objects of other types do not have that kind of being which one associates with substances. The essence of a substance, from the symbolic point of view, is that it can only be named—in old-fashioned language, it never occurs in a proposition except as the subject or as one of the terms of a relation. If what we take to be simple is really complex, we may get into trouble by naming it, when what we ought to do is to assert it. For example, if Plato loves Socrates, there is not an entity " Plato's love for Socrates," but only the fact that Plato loves Socrates. And in speaking of this as " a fact," we are already making it more substantial and more of a unity than we have any right to do.

Attributes and relations, though they may be not susceptible

of analysis, differ from substances by the fact that they suggest a structure, and that there can be no significant symbol which symbolizes them in isolation. All propositions in which an attribute or a relation *seems* to be the subject are only significant if they can be brought into a form in which the attribute is attributed or the relation relates. If this were not the case, there would be significant propositions in which an attribute or a relation would occupy a position appropriate to a substance, which would be contrary to the doctrine of types, and would produce contradictions. Thus the proper symbol for "yellow" (assuming for the sake of illustration that this is an attribute) is not the single word "yellow," but the propositional function "x is yellow," where the structure of the symbol shows the position which the word "yellow" must have if it is to be significant. Similarly the relation "precedes" must not be represented by this one word, but by the symbol "x precedes y," showing the way in which the symbol can occur significantly. (It is here assumed that values are not assigned to x and y when we are speaking of the attribute or relation itself.)

The symbol for the simplest possible kind of fact will still be of the form "x is yellow" or "x precedes y," only that "x" and "y" will be no longer undetermined variables, but names.

In addition to the fact that we do not experience simples as such, there is another obstacle to the actual creation of a correct logical language such as I have been trying to describe. This obstacle is vagueness. All our words are more or less infected with vagueness, by which I mean that it is not always clear whether they apply to a given object or not. It is of the nature of words to be more or less general, and not to apply only to a single particular, but that would not make them vague if the particulars to which they applied were a definite set. But this is never the case in practice. The defect, however, is one which it is easy to imagine removed, however difficult it may be to remove it in fact.

The purpose of the foregoing discussion of an ideal logical

language (which would of course be wholly useless for daily life) is twofold: first, to prevent inferences from the nature of language to the nature of the world, which are fallacious because they depend upon the logical defects of language; secondly, to suggest, by inquiring what logic requires of a language which is to avoid contradiction, what sort of a structure we may reasonably suppose the world to have. If I am right, there is nothing in logic that can help us to decide between monism and pluralism, or between the view that there are ultimate relational facts and the view that there are none. My own decision in favour of pluralism and relations is taken on empirical grounds, after convincing myself that the *à priori* arguments to the contrary are invalid. But I do not think these arguments can be adequately refuted without a thorough treatment of logical types, of which the above is a mere sketch.

This brings me, however, to a question of method which I believe to be very important. What are we to take as data in philosophy? What shall we regard as having the greatest likelihood of being true, and what as proper to be rejected if it conflicts with other evidence? It seems to me that science has a much greater likelihood of being true in the main than any philosophy hitherto advanced (I do not, of course, except my own). In science there are many matters about which people are agreed; in philosophy there are none. Therefore, although each proposition in a science may be false, and it is practically certain that there are some that are false, yet we shall be wise to build our philosophy upon science, because the risk of error in philosophy is pretty sure to be greater than in science. If we could hope for certainty in philosophy the matter would be otherwise, but so far as I can see such a hope would be chimerical.

Of course those philosophers whose theories, *prima facie*, run counter to science always profess to be able to interpret science so that it shall remain true on its own level, with that minor degree of truth which ought to content the humble scientist. Those who maintain a position of this sort are bound—so it seems to me—to show in detail how the inter-

pretation is to be effected. In many cases, I believe that this would be quite impossible. I do not believe, for instance, that those who disbelieve in the reality of relations (in some such sense as that explained above) can possibly interpret those numerous parts of science which employ asymmetrical relations. Even if I could see no way of answering the objections to relations raised (for example) by Mr. Bradley, I should still think it more likely than not that some answer was possible, because I should think an error in a very subtle and abstract argument more probable than so fundamental a falsehood in science. Admitting that everything we believe ourselves to know is doubtful, it seems, nevertheless, that what we believe ourselves to know in philosophy is more doubtful than the detail of science, though perhaps not more doubtful than its most sweeping generalizations.

The question of interpretation is of importance for almost every philosophy, and I am not at all inclined to deny that many scientific results require interpretation before they can be fitted into a coherent philosophy. The maxim of "constructions *versus* inferences" is itself a maxim of interpretation. But I think that any valid kind of interpretation ought to leave the detail unchanged, though it may give a new meaning to fundamental ideas. In practice, this means that *structure* must be preserved. And a test of this is that all the propositions of a science should remain, though new meanings may be found for their terms. A case in point, on a non-philosophical level, is the relation of the physical theory of light to our perceptions of colour. This provides different physical occurrences corresponding to different seen colours, and thus makes the structure of the physical spectrum the same as that of what we see when we look at a rainbow. Unless structure is preserved, we cannot validly speak of an interpretation. And structure is just what is destroyed by a monistic logic.

I do not mean, of course, to suggest that, in any region of science, the structure revealed at present by observation is exactly that which actually exists. On the contrary, it is in

the highest degree probable that the actual structure is more fine-grained than the observed structure. This applies just as much to psychological as to physical material. It rests upon the fact that, where we perceive a difference (e.g. between two shades of colour), there is a difference, but where we do not perceive a difference it does not follow that there is not a difference. We have therefore a right, in all interpretation, to demand the preservation of observed differences, and the provision of room for hitherto unobserved differences, although we cannot say in advance what they will be, except when they can be inferentially connected with observed differences.

In science, structure is the main study. A large part of the importance of relativity comes from the fact that it has substituted a single four-dimensional manifold (space-time) for the two manifolds, three-dimensional space and one-dimensional time. This is a change of structure, and therefore has far-reaching consequences, but any change which does not involve a change of structure does not make much difference. The mathematical definition and study of structure (under the name of "relation-numbers") form Part IV of *Principia Mathematica*.

The business of philosophy, as I conceive it, is essentially that of logical analysis, followed by logical synthesis. Philosophy is more concerned than any special science with relations of different sciences and possible conflicts between them; in particular, it cannot acquiesce in a conflict between physics and psychology, or between psychology and logic. Philosophy should be comprehensive, and should be bold in suggesting hypotheses as to the universe which science is not yet in a position to confirm or confute. But these should always be presented *as* hypotheses, not (as is too often done) as immutable certainties like the dogmas of religion. Although, moreover, comprehensive construction is part of the business of philosophy, I do not believe it is the most important part. The most important part, to my mind, consists in criticizing and clarifying notions which are apt to be regarded as fundamental and accepted uncritically. As instances I might men-

tion: mind, matter, consciousness, knowledge, experience, causality, will, time. I believe all these notions to be inexact and approximate, essentially infected with vagueness, incapable of forming part of any exact science. Out of the original manifold of events, logical structures can be built which will have properties sufficiently like those of the above common notions to account for their prevalence, but sufficiently unlike to allow a great deal of error to creep in through their acceptance as fundamental.

I suggest the following as an outline of a possible structure of the world; it is no more than an outline, and is not offered as more than possible.

The world consists of a number, perhaps finite, perhaps infinite, of entities which have various relations to each other, and perhaps also various qualities. Each of these entities may be called an "event"; from the point of view of old-fashioned physics, an event occupies a short finite time and a small finite amount of space, but as we are not going to have an old-fashioned space and an old-fashioned time, this statement cannot be taken at its face value. Every event has to a certain number of others a relation which may be called "compresence"; from the point of view of physics, a collection of compresent events all occupy one small region in space-time. One example of a set of compresent events is what would be called the contents of one man's mind at one time—i.e. all his sensations, images, memories, thoughts, etc., which can coexist temporally. His visual field has, in one sense, spatial extension, but this must not be confused with the extension of physical space-time; every part of his visual field is compresent with every other part, and with the rest of "the contents of his mind" at that time, and a collection of compresent events occupies a minimal region in space-time. There are such collections not only where there are brains, but everywhere. At any point in "empty space," a number of stars could be photographed if a camera were introduced; we believe that light travels over the regions intermediate between its source and our eyes, and therefore something is happening

in these regions. If light from a number of different sources reaches a certain minimal region in space-time, then at least one event corresponding to each of these sources exists in this minimal region, and all these events are compresent.

We will define a set of compresent events as a "minimal region." We find that minimal regions form a four-dimensional manifold, and that, by a little logical manipulation, we can construct from them the manifold of space-time that physics requires. We find also that, from a number of different minimal regions, we can often pick out a set of events, one from each, which are closely similar when they come from neighbouring regions, and vary from one region to another according to discoverable laws. These are the laws of the propagation of light, sound, etc. We find also that certain regions in space-time have quite peculiar properties; these are the regions which are said to be occupied by "matter." Such regions can be collected, by means of the laws of physics, into tracks or tubes, very much more extended in one dimension of space-time than in the other three. Such a tube constitutes the "history" of a piece of matter; from the point of view of the piece of matter itself, the dimension in which it is most extended can be called "time," but it is only the private time of that piece of matter, because it does not correspond exactly with the dimension in which another piece of matter is most extended. Not only is space-time very peculiar within a piece of matter, but it is also rather peculiar in its neighbourhood, growing less so as the spatio-temporal distance grows greater; the law of this peculiarity is the law of gravitation.

All kinds of matter to some extent, but some kinds of matter (viz. nervous tissue) more particularly, are liable to form "habits," i.e. to alter their structure in a given environment in such a way that, when they are subsequently in a similar environment, they react in a new way, but if similar environments recur often, the reaction in the end becomes nearly uniform, while remaining different from the reaction on the first occasion. (When I speak of the reaction of a piece of matter to its environment, I am thinking both of the con-

stitution of the set of compresent events of which it consists, and of the nature of the track in space-time which constitutes what we should ordinarily call its motion; these are called a "reaction to the environment" in so far as there are laws correlating them with characteristics of the environment.) Out of habit, the peculiarities of what we call "mind" can be constructed; a mind is a track of sets of compresent events in a region of space-time where there is matter which is peculiarly liable to form habits. The greater the liability, the more complex and organized the mind becomes. Thus a mind and a brain are not really distinct, but when we speak of a mind we are thinking chiefly of the set of compresent events in the region concerned, and of their several relations to other events forming parts of other periods in the history of the spatio-temporal tube which we are considering, whereas when we speak of a brain we are taking the set of compresent events as a whole, and considering its external relations to other sets of compresent events, also taken as wholes; in a word, we are considering the shape of the tube, not the events of which each cross-section of it is composed.

The above summary hypothesis would, of course, need to be amplified and refined in many ways in order to fit in completely with scientific facts. It is not put forward as a finished theory, but merely as a suggestion of the kind of thing that may be true. It is of course easy to imagine other hypotheses which may be true, for example, the hypothesis that there is nothing outside the series of sets of events constituting my history. I do not believe that there is any method of arriving at one sole possible hypothesis, and therefore certainty in metaphysics seems to me unattainable. In this respect I must admit that many other philosophies have the advantage, since in spite of their differences *inter se*, each arrives at certainty of its own exclusive truth.

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WHY HUMANISM ?

F. C. S. SCHILLER

Born 1864 ; Rugby School and Balliol College ; M.A., Sc.D. Oxford ; Fellow and Tutor of Corpus Christi College

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WHY HUMANISM?

I

Behind all philosophy lies human nature, and in every philosopher there lurks a man. The reason why philosophy is mostly so obscure is that we are (not unreasonably) ashamed of ourselves. We are ashamed of human nature, and *therefore* claim for what is reputed best in us, our thoughts, that they soar far above it, and must win the absolute approval of intelligence as such. We are ashamed of ourselves, and therefore *camouflage* our motives and our ends. Unfortunately this *camouflage* too often succeeds in deceiving even ourselves: hence there are many philosophies which are, and will ever be, more or less unintelligible, simply because we do not know enough about the men who made them, and so cannot grasp the central idiosyncrasy that held together what to an outside observer seems their incongruous contents. In other cases we have material enough to reconstruct the author's mind: we can then often prove of them what we can suspect in all, viz., that the philosopher, in his exposition, deliberately inverted the natural order of his thinking. His conclusions were his starting-point, and his premisses were painfully sought out to support them. But a philosopher should not be too severely blamed for this sort of thing: he is no more bound than other men to give himself away.

Neither is it surprising that the philosopher's nature should shrink from encountering the real, unequipped, unfortified, and undisguised: he feels it to be "all too human" to be exposed to the encounter. Academic decorum therefore demands that many of its parts should be ignored and decently hidden away

So we idealize it at what we take to be its best, and, clothing it in fabrics (or fabrications) cunningly woven of words, surround it with a spiritual atmosphere of convention and make-believe that softens its stark outlines. So long and earnestly have we laboured at such devices that by now the philosopher who seeks the naked truth finds himself enmeshed in a network of fictions more tenacious than Vulcan's net, and immersed in an atmosphere of illusion thicker than any London fog ; he needs unusual strength and clearsightedness to break out into the open air and face the facts. Only the intensest love of truth and the highest intellectual and moral courage will nerve him even to raise the question whether the *parties honteuses* of the soul are as dangerous and disreputable as they are supposed to be.

II

Now experience shows that perhaps the subtlest and most effective of such devices for 'sublimating' human nature is connected with the defining of the provinces of the various sciences, and the allocating to each of its proper field of operation. In the process of drawing the line between two adjacent sciences that operate upon the same *data*, it is quite easy to drop out of sight any feature in human nature which it is desired officially to suppress. The sciences concerned are simply so defined that neither the one nor the other can technically recognize the existence of the obnoxious feature. In this way extensive and vitally important portions of human nature are thrust out of the jurisdiction of science, and are outlawed. This procedure is always in our power : it is quite arbitrary, and, indeed, a mere trick, but none the less effective for that.

Especially when it is played upon the very powers whereby we generate the sciences. The sciences are in all cases fruits of special attention and inquiry directed upon some salient aspect of (apparent) reality : consequently they all rest upon human interest and human selection. Now as such selection necessarily and intentionally neglects what, for the time being, it is not interested in, or does not regard as helpful, it may be

denominated an abstraction; but if anyone challenges such an abstraction as erroneous or useless or neglectful of the relevant, it should always be possible to justify the abstraction, if it is a good one. The justification will take the form—'I am perfectly aware that I have *not* considered the whole of reality, but have picked out a part. But I had no need to consider the whole—which by the way no one can do—and I had a right to pick out the part in which I am interested, and which is important, and sufficient, and valuable for my purpose. Surely you do not dispute my right to concentrate upon whatever suits me, and whatever I need? For unless I did that, no science could arise or serve any useful purpose. You may call my selection an abstraction, if you please; but it is a *good* abstraction, because it yields a good science. For in the last resort a science is good or bad according as it shows itself convenient or otherwise, for the human purposes concerned with it: that is the difference between a science and a mere game with abstractions, and it is the ultimate test to apply.'

To this it is customary to reply that any subordination of science to any human interest derogates from the dignity of science. It sullies the 'purity' of science. It lowers its 'ideal.' It contaminates it with human errors and vices. It humanizes what should be deified, and thus deprives humanity of the superhuman support which the sciences could give if they were conceived as transcending human frailty. Above all, it would so enormously complicate scientific problems if at every step reference had to be made to human personality, purposes and motives, that nothing recognizable as science could result. In short, science must depersonalize and dehumanize itself in self-defence.

III

There is so much speciousness about this rejoinder that to discover how much substance there is in it, and to avoid an inconclusive wrangle, it will be well to examine a leading case where the trick under discussion has long been practised,

flagrantly and with signal success. I mean the case of Logic and Psychology. These two sciences are evidently concerned with the same subject-matter, the cognitive operations of human beings and all that appertains thereto. It is evident, therefore, that they must be defined as viewing these operations differently and with different intent. But it is not evident that these differences should lead to any conflict, or even to lack of co-operation, between logic and psychology. Nor is it evident that they must be defined in such a way that everything logical should have to be regarded as transcending psychology, everything psychological as a hindrance to logic, and everything human as irrelevant to both logic and psychology.

IV

Yet this is precisely what has been done. Psychology has been defined as a descriptive science, concerned with (mental) facts and processes, but *not* concerned with their function, meaning, and value; if it was barely allowed to mention these as existing in fact, it was at any rate prohibited from recognizing their significance. On the other hand, by 'description,' more was meant than met the eye. The 'description' was intended to be of a particular sort, viz., that which naturally suggests itself to an external observer. Psychological descriptions were to catalogue the contents of the mind in terms derived from external observation, and as if they were *objects* in the external world. The fact that they weren't, and behaved quite differently, was to be ignored. Psychology must do as the other sciences all did: for how else could its psychologizing be scientific? Still more improper was it to allude to psychical facts which were not, and could not be, 'objects' at all. Hence such things as activities and attitudes, as personality, and, above all, as the subject or self, not being really *things* at all, had to be denied, or else explained away. For the reason, once again, that in the observations of the other sciences, no inquiry was made into the observer. By way of reward for their submissiveness to these *tabus* psychologists were permitted to revel in 'parts'

of the soul, 'faculties,' and 'elements,' in their 'relations,' 'associations,' 'fusions,' and 'complications,' *ad nauseam* and *ad absurdum*. For as these were all conceived as *thing-like* entities, no check of the vagaries of psychological imagining was called for. Within these limits psychologies could go as they pleased. No test, no reckoning was demanded of them. No proof was required that the entities they talked about actually existed, and could compose a mind. Not even the logical absurdity of the claim to distinguish 'elements' which could (admittedly) never be isolated or observed 'pure,' not even the arbitrariness of 'analyses' which were verified by no synthesis, could moderate the exuberance of psychological theories which neither possessed nor claimed any power to predict and control the actual course of psychic life. For was not psychology a free and pure 'theoretic' science that could neither learn from practice nor instruct it?

V

Logic fared still worse under the arbitrary restrictions imposed on it by its definition. The first condition to which an object of logical contemplation had to submit was that it had to sever itself from its whole natural context. It was called upon in the sacred name of Logic to disavow its origin after the flesh, all its human relations and attachments, and all earthly aims. The actual judgment, as it occurs in fact, is a human and personal act through and through, and essentially part of a personal train of thought, which arises in an individual mind at some particular time and place. Accordingly it is prompted by some interest, or incited by some imperative need; it is accompanied by emotions, and aims at the satisfaction of some desired end. Its procedure, moreover, appears to be quite high-handed, not to say self-willed: it *selects* its object and runs infinite *risks* of error in so doing; it experiments with ideas, it resolves doubts, answers questions, and decides between alternatives. It has thus a varied past, and expects to have a future. For it looks forward to its verification, and leads on to other judgments,

without end. Moreover, it has personal relations with its maker. It claims to express his meaning and to serve his purpose. Lastly, it lays claim to *value*: it claims to be the *best* and *truest* judgment he could have made under the circumstances. For else would he not have made another?

Such are the plain and undeniable features of every actual judgment, and it might be supposed that Logic would be glad to notice them. But not at all: the traditional definitions of logic all require it to set them aside as logically irrelevant, or disastrous. 'Logic' prefers to deal with 'propositions,' i.e. with depersonalized strings of words, which may be used to convey (various) meanings by various persons at various times, but are actually devoid of meaning as they stand. It then becomes, not a study of thought, but of the verbal implications of 'dictionary-meanings.' This is the procedure of formal Logic which has been academically taught as the theory of thought for over two thousand years, although it is doubtful whether any one has ever used it in his own thinking.[1]

Or else, if the term 'judgment' is retained, it is only on condition that it is depersonalized and dehumanized, until it can no longer exist, certainly on earth, and probably in heaven. To fit it for 'logical' use the judgment has in the first place to be purged of all taint of the psychic and 'subjective' *milieu* in which it was born. This involves the repudiation of its whole human ancestry and antecedents, of its date and place in the world, of its use and function, of its purposiveness, of the meaning it was intended to convey. In return for these sacrifices it is promised an apotheosis. It is promised 'eternal' (or at least timeless) truth, 'universality,' formal validity and immunity from error, a prospect of 'absolute' truth, and a diviner meaning in place of that which it had to jettison. For it is now assured that it never meant, or could mean, what its maker meant, and wanted it to mean, but always unwittingly aspired to a loftier destiny. As made, it was a poor and partial thing, a mere selection from the infinite wealth of the totality

[1] Mr. F. H. Bradley is emphatic that *he* has not. Cf. *Principles of Logic*, 2nd ed., pp. 534, 621.

of reality, and vitiated to the core by unexpressed and unknown conditions, exposing it for ever to invasions from the circumambient whole, and destroying its truth. Surely no self-respecting judgment could endure so precarious a lot: it must aim at expanding and re-stating itself until it was enabled to express the whole truth and nothing but the truth. Thus would all judgments ultimately be glorified by one and the same meaning, and transfigured by referring to the Absolute Reality.

VI

True, these dazzling promises, which rest on an obliteration of the distinction between logic and metaphysics, are not kept. It turns out before long that no judgment, no discursive thought, in 'relational form' can reach the Absolute, or become absolutely true; nor can any validity of form guarantee correctness of application, and so real truth.[1] Nor, lastly, can any judgment quite escape from its entanglement in psychical irrelevance. What, however, finally becomes of these artefacts of 'Logic,' the all-embracing judgment and the self-developing inference, is not made clear. They are too feeble to rise to the Absolute, too mutilated to return to earth. After their failure, 'Logic' appears to lose its interest in them, and leaves them to flit about the region of 'appearance' in ghostly guise, incapable alike of full truth and full-blown error, and impotent to affect the actual reasonings of men.

Thus 'Logic,' so defined, fails in the end to make good its own claim.[2] But even if metaphysical logic could keep its delusive promises, two important questions would remain unanswered. In the first place, what meaning and what value does this 'logic' allow to the procedures and problems of human thinking? The answer is plainly *None!*—they simply drop out. The facts of human thinking and knowing are nonsuited, both in 'Logic' and in Psychology, and can make themselves heard in neither. But, secondly, they nevertheless

[1] Bradley, *op. cit.* pp. 618, 619.
[2] Cf. Bradley, *op. cit.*, p. 601.

continue to exist. So what is to be done with them? 'Logic' cannot say: but man must insist that, if they are facts, they can be studied scientifically, and that their study will be infinitely more important than either 'Logic' or 'Psychology.'

VII

A similar *tour de force* is played with the antithesis of 'theory' and 'practice.' It is first assumed that this antithesis is absolute, and then inferred that there can be no necessary or inherent connexion between theory and practice. It matters not that this is a pure assumption, and moreover one which runs directly counter to a multitude of facts. If it is true, how is it that 'practical' needs are continuously setting on foot theoretic inquiries, and that theoretic speculations are continually conducting to practical applications, or that practical success is so potent in silencing theoretic doubt, and that theoretic certainty is sensibly enhanced by practical confirmation? These relations can hardly all be entirely fortuitous, and they forcibly suggest that the initial definitions of 'theory' and 'practice' as absolutely different were simply devices for obscuring the facts which connect them, and reveal them both as contributory to the ends of human life.

This suspicion is confirmed when the notion of 'pure theory' is confronted with the facts of scientific inquiry; for it then appears to be a psychical fact that there is no such thing as a truly 'disinterested' inquiry. All inquiry seems to be inspired by an interest—even if it is no better than sheer curiosity—and to aim at a good that is worth pursuing in the inquirer's eyes. Furthermore, his whole inquiry is an *activity* in which every step is one he wills to take, and so his *act*. Hence a 'pure' thought that does not aim at ends ('goods') to be achieved by the activity, appears to be psychologically impossible. If it were not, it would be a game and a frivolity: but even games have their uses and practical value, biologically and sociologically, even though those who play them may be unaware of them, and may be indulging only in the satisfaction

of an instinct. Is it clear, then, that if we take 'practical' widely enough, as meaning 'concerned with the business of living,' not only does its antithesis to 'theoretic' become relative, but all our thoughts and all our acts must be 'practical'? For good or evil; for even our most irrational, trivial, and futile acts must have a bearing on our success in life.

VIII

Have the foregoing sections explained and justified the adoption of the name 'Humanism' by the systematic protest against the artificial elimination of the human aspects of knowing in the intellectualist versions of logic and psychology? Has it also become clear that there is nothing emotional or irrational in this protest? It is not asserted that intellectualism is reprehensible or repugnant as such; it is not denied that (up to a point at any rate) alternative descriptions may be framed, or even that for different purposes different descriptions and demarcations may be found convenient. Neither is it denied that the terminology of intellectualism is one of the persistent dialects of philosophy. Only it is not the dialect in which to describe the intelligence of a living being. It rests on abstractions which are, biologically, incredible. The objection to actual intellectualism, therefore, is that it misrepresents our intelligence, and does not render our actions intelligible. The objection to actual rationalism is that its attempt to reduce everything to a dehumanized 'Reason' makes everything unreasonable. And the objection to *both* is that *they leave out far too much*, and, on their own showing, fail to make intelligible even the few facts they are willing to acknowledge. Is it not high time therefore to try whether a more activistic or voluntaristic interpretation will not prove more comprehensive and more comprehensible?

IX

Humanist Voluntarism, then, though it aims at superseding Rationalism, is not the foe of reason. Only it refuses to ignore

the behaviour of human reason and to cut it adrift from the human life it ought to guide. It thinks the *a priori* reasons given for this severance bad. It prefers to take 'reason' as it empirically finds it, and to study it in life, active and free, and not *in vitro*, dead, bottled up, and preserved in spirits. Similarly, it does not mean anything metaphysical by 'will' (like Schopenhauer), nor commit itself to any fiction of a special 'faculty.' It uses 'will' merely as a convenient term for recognizing an all-pervasive and essential feature in human life, to wit the *active* side of our nature, which it thinks has been unjustly and disastrously ignored for the reasons analysed in §§ II–VI. And it believes that its recognition would have a very beneficial and clarifying effect on a number of important philosophic problems which have hitherto defied solution.

X

For example, it throws a new light on the old controversy about the origin of knowledge, which Rationalism and Empiricism have carried on so inconclusively, mediating between these extremes, and showing where each was right and each was wrong.

In the first place only the maddest rationalism could really hold that experience was valueless and totally irrelevant to knowledge. Rationalisms have sometimes been driven very nearly into such assertions ; but against their will. They were usually content to maintain—and did tenaciously maintain—that experience (as described) could not account for all that was implied in knowledge. Certain truths—or at any rate certain forms of thought—could not come from experience, because the experience from which they were said to be derived could only arise in a mind already possessed of these forms. Consequently it was inferred that these forms must be *a priori*, prior to experience, and rooted in some superior region of the mind.

After long debate, rationalism had so far succeeded in making out its case. But its victory was far from complete, and it

had *not* made out its claim that the defeat of (a particular sort of) empiricism was *ipso facto* proof positive of its own contentions. And it had made use of some pretty precarious inferences. It had begun by establishing a negative; not all knowledge could come from experience. To pass from that to 'therefore it must be *a priori*' was not cogent; 'therefore experience must have been misdescribed' was a possible alternative. And even after the *a priori* had been reached, its meaning was very vague, and nearly negative; it meant little but 'what cannot be traced to experience.' And to rest one's positive account of knowledge on a presumed inability of one's adversary to account for it was a precarious proceeding, because a new way of conceiving experience, or deriving the '*a priori*' from it, might at any time invalidate the case for the *a priori* of rationalism. Also '*a priori*' was so vague a term as to cover almost anything; it left rationalism ample licence in filling in the bare outlines of the *a priori*. But the rationalist mythologies, which attempted to describe the *a priori* nature and structure of the soul, all seemed highly improbable and incredible, from Plato's day to Hegel's. Finally it has to be observed that to defeat empiricism is not to utilize experience, and to vindicate an *a priori* is not enough to make knowledge intelligible, so long as it is analysed into two alien and hostile factors that are tied together, but not enabled to work together.

Empiricism, on the other hand, though technically defeated, was not rendered powerless. It had incurred defeat by its own mistakes in stating its principle and by its perversity in adopting that of its adversary. For it had not come to the study of experience with an open mind, but with a *parti pris*, with a prejudice as to its nature. It had recognized nothing in experience but what could be set down to passive receptivity of 'impressions,' and had thereby ruled out the possibility that the knower might *react* upon his impressions and manipulate them selectively, appropriating some and ignoring others, according to his needs, nay, going so far as to *make demands* on nature and experimenting with it in order to extract responses to his questions and satisfactions of his desires. Now, in ruling

out these fairly obvious possibilities, what was empiricism exhibiting but *a priori* prejudice?

Accordingly there is room for an improved version on both sides. The field is open for a new empiricism and for a new conception of the *a priori*. After all, a certain apriorism enters into every empiricism, in that, to begin with, it has to decide what *shall count* as 'experience.' Most empiricisms are very selective, and rule out *a priori* such stuff as dreams, hallucinations, and various sorts of 'abnormal' experience. Similarly, every apriorism becomes at a certain point empirical. It must claim for its *a priori* structures existence as empirical fact. And that they are such as they are, and not otherwise, must be just fact too. As, then, the two sides seem to converge, these two novelties may well turn out to be one and the same. If, among the facts of experience, the empiricist is willing to include an actively inquiring mind, he will be able to explain how a knower can use conceptions that do not 'come from experience,' and yet are not 'prior' to it, seeing that they are *suggested* by it, and adopted long before they are *proved*, because they seem acceptable and desirable, and likely to give satisfaction when verified. Such conceptions would be essentially *postulates*, suggested, no doubt, by experience (more or less directly), but really rooted in the demands and cravings of the subject, and thereafter *brought to* the interpretation of experience, and more or less *forced* upon it. But though subjective in origin, they may clearly acquire objective validity. For after solipsism has been repudiated as *practically* untenable, experience has to be conceived as a joint product, which is what it is because the subject is affected by other beings that are also active. Hence to try a postulate is one thing, to succeed with it is another. Of the postulates that are tried—and their name is legion—many have to be abandoned, like those of 'magic' and of 'superstition': others remain precarious and more or less 'matters of faith,' like those of religion; only a few rise to be unquestioned *axioms*.[1]

Similarly, if the apriorist will consent to go into the question

[1] Cf. "Axioms as Postulates" in *Personal Idealism*, especially § 8–27.

how a priori ?, he will see that the *a priori* need not be a piece of mental furniture, nor a coercive 'necessity of thought.' It need not be rooted in what he considers 'thought' at all, but may proceed from activity or 'will.' Thus desire or will, *alias* our whole purposive nature, may generate the preconceptions or demands with which we approach the given, and which we try to realize. After which experience will have its say as before, and decide whether they are to be ratified or rejected. For, of course, the stubborn nature of things may defeat our endeavours.

Thus our final 'knowledge' will be neither wholly *a priori* nor wholly empirical. It will be a product of the continual interplay and interaction of the knower and his world, and will owe its character to *both*. It is evident that this theory regards both factors as essential, utilizes both, and combines them in the closest intimacy. Thus it does justice to everything that was valuable in both empiricism and apriorism, and really effects their synthesis. Knowledge becomes a continuously developing process to which no term need be set.

XI

For confirmation of this account of knowledge Humanism can confidently appeal to the procedure of the sciences. This has been systematically misrepresented by formal logicians, who have been unwilling to recognize that it is concerned with probable, and not with 'formally valid,' reasoning, and so have laboured to force methods of *discovery* into conformity with their (unrealizable) 'ideals' of *proof*.[1] But if scientific procedure be studied, not in its dogmatic re-statement in terms of the current orthodoxy and with its delusive claim to finality, but in its historical development, it will soon be evident that it neither has, nor really claims, the finality, certainty, and absoluteness with which it is decorated, and, so far from being fixed, static, and eternal, is essentially in process and undergoes

[1] Cf. Dr. Singer's *Studies in the History and Methods of Science*, p. 235 f., vol. i.

continuous transformation—for the better. The scientist who understands his method never dreams of saying: 'All have been in error hitherto, but now *I* have discovered the absolute truth,' any more than he says: 'Nothing but sheer coercion will make *me* acknowledge a truth.' He is content to work out slightly better methods than his predecessors, and to use any assumption he *needs*.

Actually scientific truth arises out of needs and problems, urgent or interesting, or, as Dewey says, out of the constant need to reconstruct our beliefs in order to adapt them to the varying situations of life. These problems we endeavour to solve by hypotheses, which are not idle, but are meant to be used. Their *value* is *tested by* their *working*, and to survive they have to be *verified*. If, that is, the consequences they predict occur in fact, if they really give us control over events, their claim to truth is confirmed; if they fail, and are falsified by the facts, they are scrapped—unless they are supported by very strong postulates which prompt us to modify them and to try again. But no amount of verification ever amounts to absolute and final proof; its very form involves it in the formal flaw of 'affirming the consequent.' Hence we can never argue that because the deductions from a theory have come true, the theory is true: the same deductions, *and more*, might be drawn from another (and better) theory. So the most that can be claimed for a theory is that it is the *best and truest up to date*, and science never renounces the hope of finding one better and truer still. Hence scientific truth is essentially improvable and progressive. It progresses by the continuous correction of 'errors' (= truths of *inferior* value), and the continual augmentation of the value of the truths accepted. Thus no truth is eternal; every truth has its day. But this does not matter so long as sufficient for the day is the truth thereof.

Now all this implies that no scientific truth is incorrigibly absolute and final. For if it were, it could not be improved upon. Language recognizes this, when it equips 'true' with a comparative and a superlative. History, moreover, shows that scientific truths *are* improvable; the more progressive a

science is, the more quickly do its 'truths' pass into 'errors,' and yield their title to superior successors.

This interpretation of scientific procedure accounts, moreover, for the hopefulness of science; whereas, if we construe it as an (unavailing) pursuit of absolute truth, it is doomed to perpetual failure and disillusionment, as each successive truth is hailed as absolute, and then found to be erroneous. The history of science then becomes merely a passage from one error to another, and an argument for scepticism.

XII

Humanism, it is plain, has arrived at a very distinctive theory of truth. It has to pay a price for it, but the advantages are many. The price is the repudiation of 'absolute' truth as an *ignis fatuus*: the main advantages are the rescue of truth from this same morass haunted by will-o'-the-wisps, in which it has floundered so long, and the construction of an adequate theory of truth. It proceeds as follows. Noticing that in real life a risk of error always attends the search for truth, it conceives truth and falsity as, respectively, the positive and the negative values belonging to the normative science of logic. Noticing that every judgment, whether actually true or false, claims to be true when made (in good faith) by its maker, it assigns to this normative science, as its function, the evaluation of truth-claims. Noticing that the truth-claim of a judgment is quite formal and universal, it realizes that it cannot ever be the real point at issue, or the meaning of 'truth' in real life; nor consequently the real interest of logic. The formal truth-claim, therefore, must always be evaluated critically. It is not to be admitted as really true, until it has been tested, and more or less validated. This testing is effected, in the first instance, by ideal experiments with alternatives in its maker's mind, *before* the judgment is announced; but mainly in the consequences it is found to entail *after* it has been published. Hence it will be seen that (effective) truth depends upon the consequences. This is true even for the maker of the judgment,

who retains the right to withdraw or amend his judgment in the light of its working. It is true also of judgments about the past, which are always generated by a present interest, and refer to tests of their truth which have not yet been made when they are propounded, and so are still in the future. It holds generally of all the special cases of 'truth,' not excepting mathematical truth, if only care is taken to provide real judgments and not mere verbal forms.[1] And it is obvious that no definite amount of testing is prescribed or needed, just because no finality is aimed at. The amount required is determined in each case by the nature of the inquiry and the purpose of the inquirer: it has merely to be sufficient.

XIII

In addition to being simple and comprehensive, this theory of truth has other advantages. (1) As was shown in § XI, it keeps closely in touch with scientific procedure, and indeed regards itself as the true philosophic interpretation thereof.

(2) It accounts for 'error' as well as for 'truth,' and puts their relations on an intelligible footing. An 'error' is conceived as the object of a value-judgment condemning a (relative) *failure* of cognitive effort, and as an acceptance of an inferior value when a superior value is available. Thus 'truth' and 'error' both become incidents in the progressive growth of knowledge, and are no longer opposed to each other in implacable enmity. An intelligent error may even be the next best thing to a truth, and a step towards its attainment. For the way to truth commonly lies through a continuous correction of errors, and the risk of error attends all truth-seeking. A 'truth' that tries to avoid this risk and to claim immunity from error is not real truth for man at all, but either a dangerous illusion or a mere piece of formalism.

(3) It is the only theory of truth that has not hopelessly broken down. Of the others, (*a*) the 'Correspondence' theory, by trying to base truth on some sort of agreement with a reality

[1] Unfortunately I have not the space to show this here.

which transcends experience, cannot be tested and is inaccessible to knowledge, manifestly makes truth meaningless by definition. (*b*) The 'Intuitional' theory condemns itself by its incapacity to discriminate the intuitions which it accepts as intuitively (and absolutely) true from self-evident delusions. (*c*) The 'Coherence' theory, by reserving truth for the Absolute, renders it unattainable by man, and scorns to discriminate human truth from human error. It does well, perhaps, to confound logic with metaphysics, for logically it is as incoherent a theory as could well be devised. It professes to derive its belief in absolute truth from truths which it subsequently proves *not* to be absolute, its belief that coherence is the essence of truth from the coherence of human systems which the absolute system subsequently convicts of incoherence, and, from the existence of scientific systems which are partial and constructed by selections and rejections, it concludes to an all-inclusive system which *ex officio* cannot select or reject anything![1]

Now while it is not true that a theory can be proved absolutely by the failure of its competitors, we may accept a theory which makes intelligible so vitally important a subject as truth and error, at any rate until something better is devised.

XIV

I have endeavoured so far to show how the chief doctrines of Humanism are interrelated and develop out of each other, if we conceive Humanism as primarily a reform of logic which removes the unwarranted *tabu* put on the personal side of knowing. But there are many other starting points from which the same conclusions could have been reached almost as conveniently. For many ways may lead to the core of Humanism, even as there radiate from it many applications. One might, e.g., have studied its development historically, and traced its ancestry back to Protagoras's dictum that man is the measure of all things.[2] Or, again, one might have conceived it as an application

[1] Cf. articles on "Arguing in a Circle" in *Aristotelian Soc. Proc.*, 1921–2, and on "An Idealist in Extremis" in *Mind*, April 1922.

[2] Cf. *Studies in Humanism*, ch. ii, and *Plato or Protagoras?*, Oxford (Blackwell).

of the biological idea of survival-value to the realm of beliefs; or have extracted it from reflexion upon the logical significance of the theological virtue of faith in the realm of religion. Similarly, it is to a great extent optional what we regard as application and what as a matter of principle. In any case the applications of Humanism are too numerous, interesting, and important to be adequately treated in the limited space at my disposal. I shall have, therefore, to confine myself to a few consequential topics which experience shows are particularly liable to be misapprehended.

XV

In what sense does Humanism make usefulness the criterion of truth? And what are the implications of saying that all truth must be useful. Does it reduce truth to usefulness? Does it follow that anything useful forthwith ranks as true, and, again, that usefulness is solely and completely measured in pounds, shillings, and pence, or rather in dollars and cents?

The answer to these latter questions is—*By no means!* and if many philosophers have written as though they believed that these implications did follow, it must have been because they had for the moment (or for the purpose!) become oblivious of the elementary rule of formal logic which prohibits the 'simple conversion' of 'A' propositions. From 'all truths are useful' and 'work,' it does *not* follow that anything useful or anything that works (say a lie!) is true. And humanists have never committed this blunder or entertained this delusion. They have always been aware of the vogue and use of lies, errors, and fictions, and other sorts of truth-claim which no one in his senses would classify as properly 'truths.' Indeed, just because they distinguished so sharply between truth-claims and truths, they have found it necessary to map out the extensive region of truth-claim, to classify its denizens, and to assign to each of them their proper locality and status. The classification turns out far more complicated than intellectualist logic had supposed. There occur among truth-claims not only truths and errors, but the lie, the fiction, the make-believe, the joke,

the methodological assumption, the methodological fiction, the postulate and the axiom. All these have to be analysed, and distinguished, and related to one another. All, moreover, have their uses, and among them is that of providing a cogent confutation of the absurd idea that whatever is useful is true.

It is hardly less important to understand the 'useful aright. Its proper meaning lies in the relation or 'category' of means-and-ends. Any means to any end is useful for that end. What *is* of use, therefore, is primarily a question of psychical fact. It depends on the end adopted and the means chosen. But as there is everywhere considerable social criticism and control of the individual's tastes and activities, neither his ends nor his means always meet with social approbation. So what he considers worth doing for the sake of a desirable end may be socially condemned as a useless, or even pernicious, pursuit. Hence, in discussing 'usefulness,' it is well to guard against this sort of ambiguity, and to make it clear, not only *for what*, but also *by whom*, this quality is claimed.

XVI

Questions much more difficult than those about the usefulness of truth arise concerning its 'working.' 'Working' is clearly a wide generic term, and it is legitimate to ask what precisely is covered by it. But for several reasons this question is difficult to answer. In the first place, it is easy enough to point to the ordinary scientific working, the relevance of which no one would deny. If a chemical theory leads to the observation of chemical facts which confirm it, it is readily inferred that, as the theory works, it is true. Here it is plain that the theory to be tested, and the working which tests it, are *in pari materia*. In other cases neither this congruity nor the logical cogency of the 'working' is so plain. Is, e.g., a moral theory proved true by its moral working and the salutary influence it has on the conduct of those who believe it? If so, Heaven and Hell might be easy to prove. In other cases the theory that works and the working that confirms it appear to belong more or less

definitely to different planes of reality. Is the existence of God proved by the spiritual comfort derived from the belief in God? Many would deny the relevance and validity of this sort of working, and though it can no longer be taken as certain that they are right, the value of *this* working is clearly disputable. Finally, we find in biology a sort of working, which, while wholly devoid of any rational appeal, yet exercises a far-reaching influence on our beliefs, and is capable of determining their adoption and the elimination of their contraries. We may call it *survival-value*. If the belief A has high survival-value, it is sure to commend itself to many, and to be adopted as true: if the belief B has negative survival-value, it tends to eliminate those who hold it, and so itself. Shall we say, then, that this natural selection among beliefs proves A to be true, and B to be false? It seems repugnant to allow so irrational a process to determine our beliefs: yet it is undeniably effective, and it is hard to set a limit to its efficacy.

We learn from these examples that the question what 'workings' shall be held relevant to the truth of a theory is not one to be settled off-hand. The truth is that the differences of opinion as to what workings are to be relevant to what truth-claims are correlated with some of the profoundest differences in human temperaments. Men take up different attitudes towards different workings because they themselves are temperamentally different. It is unreasonable therefore to expect a general theory of cognitive method to produce forthwith uniformity and agreement among men.

XVII

Among the questions which have been most debated in connexion with the humanist and pragmatist attitude in philosophy is undoubtedly that of the 'Will to believe.' But as it is also one in which the temperamental factor just noticed is conspicuous, it is not one likely to be settled just yet.

Up to a point its discussion is plain sailing. In itself the existence of a Will to believe is merely consequential on any

voluntarist interpretation of human nature. It is also easily verified as an empirical fact. So is the existence of a Will to disbelieve, where the consequences of belief would be distasteful. Only an utterly intellectualist psychology could refuse to recognize these tendencies as psychic facts in human nature. Nor can it well be denied that by the volitional attitudes we take up towards beliefs we prepare, or incapacitate, ourselves for the evidence of their truth. It may even have to be admitted, consequentially though reluctantly, that certain truths can only become visible to those who are willing to credit them in advance of any proof, by an act of faith. They verify themselves for one who will say, *credo ut intelligam ;* but they do not *compel* assent.

Still the situation does not become really perplexing until we encounter cases where *either* of two incompatible views can claim, when adopted, that it is confirmed by subsequent experience. Yet such cases are not uncommon. For example, if a determinist interpretation be put upon the succession of events, no event will be found to refute this interpretation ; yet the same set of events will equally conform to a libertarian explanation. A still clearer alternative of this kind is that between optimism and pessimism. Whichever of these one wills to believe, one can interpret all the facts into agreement with one's belief. In the one case the evil, in the other the good in life is declared to be 'only apparent.' That the real should be thus ambiguous, and obliging, and submissive to our interpretations, is surely a remarkable fact. It is, of course, conclusive testimony to the soundness of the humanist contention as to the decisive *rôle* of human activity : but it raises difficult metaphysical questions as to what this submissiveness involves.

XVIII

We are thus finally reminded that though nothing is more disastrous to science than a premature intrusion of metaphysics, yet in the end we cannot escape from metaphysical problems, however little we may believe in their solutions. I have through-

out this essay eschewed metaphysics, and been careful to describe Humanism as an attitude of the human spirit and as a method of solving the problems of human knowing, rather than as a metaphysical doctrine about reality as such: but I cannot altogether deny that it has metaphysical implications, and points to metaphysical consequences of considerable interest. In this essay they can, unfortunately, only be mentioned, and not explored.

In the first place it is implied in our whole account of the activity of knowing that it would be futile, if it met with no response from nature. If the real to be known were just hard unyielding fact that remained what it was, whatever we tried to do with it, not only our knowing, but *all* our activities would be paralysed. A certain *plasticity* of the real, whereby we are enabled to adapt it to our ends, is therefore a necessary postulate. How far this plasticity goes it is difficult to say, because only a few of the experiments conceivable have yet been tried; but we have a right to assume, for methodological reasons, that it is as complete as we desire. For if we assumed rigidity, we should only be debarring ourselves from discovering the possibilities of plasticity. Nor is our assumption so unreasonable in fact; for we saw in § XVII that in some respects the plasticity of the real actually goes further than is convenient.

Secondly, a certain *pluralism* is pretty definitely implied in Humanism. For, in protesting against the intellectualist abstractions from the human aspects of knowing, it recognizes each man as a real centre of activities, and *ipso facto* declares illusory the 'simplification' which treats all men as one and neglects their differences. Thus the empirical plurality of beings is not slurred over, but recognized as of right. This does not necessarily mean that the way to every sort of monism is barred; but it does mean that monism will have to be honestly arrived at, and not simply presumed, with a perfunctory parade of unsound arguments.

Lastly, the pluralism implicit in any refusal to abstract from personality naturally tends to *individualism*. But so do all metaphysics, rightly understood. Not only are they, his-

torically speaking, highly individual products of exceptional minds, but their individuality is manifestly derivable from the very function of metaphysics. The proper function of metaphysics is to effect a final synthesis of all the *data*, provided by all the sciences, and relevant to the final question about reality —*What does it all mean?* Admittedly, therefore, it must take into account *all* the data and undo the abstractions, rightly practised for their special purposes by all the other sciences. Conspicuous among these abstractions, however, is that from personality; it is generally practised by the sciences, and with success. But this only renders it more urgent that personality should come to its own in metaphysics, where it is no longer legitimate or possible to exclude it. Now this is precisely what we find to be the case: the personality of the metaphysician is found to supply the principle which evaluates the data of the sciences (as known to him), and arranges them in a system that brings the world nearer to his heart's desire. But the very reason that renders his metaphysic satisfactory to him, viz., the part played in it by his own personality, is bound to render it more or less unpalatable to others, who find that *their* idiosyncrasies have *not* been satisfied. Hence metaphysics seem doomed to remain *personal guesses* at ultimate reality, and to remain inferior in objective value to the sciences, which are essentially 'common' *methods* for dealing with phenomena. Nevertheless Humanism, though it cannot forget that it is itself a method, will regard the efforts of metaphysicians with tolerance and interest, and will not deny them at least æsthetic value, where their constructions show artistic merit.

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SOME IMPLICATIONS OF THEISM

WILLIAM TEMPLE

Born 1881 ; M.A., Oxford ; Bishop of Manchester

BIOGRAPHICAL

A PHILOSOPHER tries to detach himself as far as possible from purely personal influences and prejudices; he tries to follow the argument wherever it may lead. But he never succeeds in becoming impersonal. His experience is his own, and cannot be an experience common to all mankind; and even his intellectual judgment is affected by the varying sensitiveness of his mind to different kinds of considerations. In dealing with such a topic as Theism in a short essay one may do something to meet the claims of honesty by giving some account of the influences which may be supposed to have been most potent in determining the general habit of one's mind.

Home influences come first. Certainly such religious life as I have is rooted there. The influences of my home were not merely those of good and devout people. My father was deeply and even passionately convinced of the Personality of God, and of the Deity of Jesus Christ. But he was also a courageous thinker, who had reached this intensity of conviction by the intellectual as well as by other roads; and he had at one time been persecuted as a supposed heretic. From him I learnt to reverence the Bible; but from him I learnt, too, to use my own wits in reading it. More particularly I remember asking him, when I was about eleven years old, why Moses called himself "the meekest of men," and his replying, "I expect he spake unadvisedly with his pen." Under his guidance I embarked on philosophy; in the summer holidays, just before I was seventeen, he produced Kant's *Critique of Pure Reason* and *Metaphysics of Ethics*, and I got through them both, though my endless questions must have shattered the repose of his own holidays. To complete the story I must add that he himself confirmed me at the age of twelve, and from that time I have never ceased to be a regular communicant.

When I left school, it was to go to Balliol under Edward Caird, who lives in my memory as the supreme example of one who lived the intellectual life. But for him there was no breach between philosophy and religion; his thought led him to the

divine; and the divine was for him revealed in Christ. He was most regular as a communicant in the College Chapel at eight o'clock on Sunday mornings.

After I took my degree, I had some years of doubt concerning specific points in the Christian tradition; but it is perhaps not surprising that I have never been able to feel any doubt about the reality of God as a Being with whom personal intercourse is possible and actual, or about the Godhead of Jesus Christ, through whom that intercourse takes place in my own experience. It is from such preconceptions that I approach the discussion of my theme.

SOME IMPLICATIONS OF THEISM

Two considerations prompt the writing of this essay. The first and most important concerns a permanent tendency of philosophy, a bad inheritance (as I believe) from the days of subsumptive logic; this is the tendency to be content with travelling the way of thought in one direction only. Plato did indeed recommend that those who travelled that way so far as to win a vision of the ultimate principle—the Idea of Good—should be required to come back and regulate human affairs in the light of the knowledge they had gained. Socrates is represented as confessing that he has never himself beheld that vision, and this confession plainly exempts him from the obligation to show how knowledge of the ultimate principle would affect our conceptions of ethics or politics. He points to the ideally right course, but advances a very good reason for not following it himself. His example has been more fruitful than his precept. Philosophers perpetually trace out a new route from the finite to the infinite, from the apparent to the real, from the world to God; but then they stop; they do not return to tell us how their vision of God leads them to regard the world. Some of them, no doubt, arrive at a goal which sheds no light upon the road by which it has been reached; but this is not always so. Even Mr. Bradley's Absolute, though itself dark with excess of light, has something to tell us about its own appearances. Certainly the God in whom the thought of Professor Pringle-Pattison finds its culmination and pivot illuminates some dark stretches of the world and of life; indeed, if the Professor would work out the implications of his own Theism he might clear our minds of various misconceptions concerning his real meaning. He is not one of

those who so conceives his ultimate term that no return journey is possible ; but if we make it, it is without his guidance.

The mention of this distinguished author suggests the other consideration prompting the composition of this essay. While contemporary thought is marked by a striking rejuvenescence of philosophical Realism, it is also characterized by a perpetually increasing emphasis on the concept of value. The latter introduces great perplexity, especially for Realists. Is Value a quality of objects or only of states of consciousness ? Are we to be Realists about facts and Idealists about values ? If we are Idealists about values, is our Idealism subjective or objective ? And if Value is a quality appertaining to states of consciousness on the occasion of certain experiences of real facts, is there any relation between the values and the facts which seem to cause them ? These and many similar questions loudly demand an answer, which no extant philosophy, so far as my knowledge goes, is even attempting to supply Professor Miguel de Unamuno, in *The Tragic Sense of Life,* virtually gives the world of facts to reason and the world of values to faith, and passionately denies the possibility of any reconciliation between them. Others, who would repudiate this dualism, fail, in fact, to give any clear account of the relation of Fact to Value. I believe that no real advance in philosophy is possible until this matter is cleared up.

Professor Pringle-Pattison affords us a starting-point because in his Gifford lectures on *The Idea of God* he presents an admirably-balanced and close-knit argument, into which he has brought all the leading conceptions of recent philosophy. His book is the nearest approach to a *Summa Philosophiæ* that any contemporary has given us. Yet as I read it I am haunted by a sense of ambiguity. It is largely by means of the concept of value that the author reaches a conclusion demanding definitely theistic language. But value seems to be regarded as a quality of things ; it is essentially adjectival. Consequently God, as here represented, hovers uncertainly between two functions—the Supreme Reality in whom all existences find the ground of their being, and the sum total

or perfection of adjectival values. As I read the argument, it is the latter conception that triumphs, and in the closing pages God appears as a quality of the world, a supremely valuable quality, no doubt, but one not indispensable to the world's existence. That there is ambiguity I cannot doubt; for when I read an essay by the same author in a volume called *The Spirit* I became convinced that I had rightly understood his meaning, while an article in *Mind* shortly afterwards persuaded me that he had actually meant something quite different.

This is not said from any desire to disparage an author to whom, in common with all English-speaking students of philosophy, I am under conspicuous obligations. The ambiguity referred to is important because it is the inevitable result of giving an important place to values, while the relation between Value and Fact is left indeterminate. It is precisely at this point that Theism affords help to the metaphysician who, in having accepted it as a conclusion, proceeds to make it the starting-point for further argument.

We spoke earlier of those whose ultimate principle throws no new light on the facts from which it is inferred; this is true of all materialist systems. In such a case the synthesis accomplished by thought is similar to the combination of mechanical forces, in that the result is exactly calculable from, and resolvable into, its constituents. But in most activities of reason each conclusion modifies the premises from which it is reached. The living thought of a science does not proceed by way of inference from unalterable data. You cannot, as many would urge, "build on the facts" because until the building is complete you do not know what they are. Accurate observation, no doubt, tells us part of the truth; but the most relevant part may elude the most accurate observer until his attention is guided by a theory based on observation, which may as yet be very incomplete. So no scientific process is merely inductive or merely deductive or merely a combination of the two. It is a gathering of data from experience; a provisional organization of those data in a system by some principle or theory which they suggest; a re-examination of the

data, now regarded as constituents (particulars) of a system (a concrete universal); a reconstruction of the system in the light of fuller knowledge of the constituents; and so forth, until a completely coherent, comprehensive, and articulated system is reached. This system is accepted as true, not because it can be inferred from something else previously accepted as true, but merely because of its own nature as comprehensive, coherent and rationally articulated.

Now it is clear that in such a process there is a continuous modification of the initial data, which are the facts as first experienced, until the system is complete.

Our concern is not with any department of reality, such as the separate sciences handle, but with the whole; and it is clear that the process here can never reach finality. It is therefore reasonable to anticipate that philosophy must, to the end of human endeavour, follow such a course as that described above where every general conclusion modifies its own grounds, and this modification leads to a modification of the conclusion.

It is no part of my purpose to set forth the grounds which lead me personally to a theistic interpretation of the universe; space would forbid the full development of the argument, and an outline statement cannot present its real force. I must confine myself to two lines of reasoning which are specially germane to the main theme of this essay; but of course these do not give the whole of the intellectual case for Theism even as cogently as I might be able to state it if I were concerned with the grounds rather than the implications of Theism. The strength of the argument for Theism consists in the convergence of several lines of thought.[1] Nor is thought the main basis of actual religion. I do not suppose that anyone ever became religious as a result of attending to the intellectual argument for Theism. Argument can only remove obstacles and open the way; the impulse to follow that way comes from elsewhere.

[1] Cf. my book *Mens Creatrix* and the last chapter of Mr. R. H. Thouless's admirable *Introduction to the Psychology of Religion.*

The first line of argument which I wish to outline is a modification of that which leads Aristotle to the declaration *κινεῖ ὡς ἐρώμενον*.[1] The chain of causes is not self-explanatory, though it may show how each fact must be what it is in the system of the whole. Such a conception as that of Bradley's Absolute is not self-explanatory, though it is offered as the ultimate explanation of everything. There is in fact only one principle which is self-explanatory; it is Purpose. We may ask why the Absolute is what it is at all, and there is no answer. Green regards as unanswerable "every form of the question why the world as a whole should be what it is."[2] But the desire to ask that question is itself the vitalizing impulse of philosophy. If there is a principle which is in fact accepted by the mind as self-explanatory, it is justifiable to adopt it provisionally and see what happens. Now there is one such principle—Purpose. When in tracing any causal nexus we reach the activity of a will fulfilling a Purpose with which we ourselves sympathize, we are in fact satisfied. Theism is the adoption of the hypothesis that the ultimate ground of the Universe is a Will fulfilling a Purpose which commends itself to our minds as good. It finds support in arguments from the sense of moral obligation and from religious experience; but in its purely logical essence it is the assumption that the ground of the Universe is a perfectly good Will.

The second line of argument leading to a theistic conclusion is the reflection that there is a perceptible scale of being, ranging from mere inorganic matter at one end, through organic matter, vegetable life, animal life, to personality as we know it in human life. As we rise in this scale we note a development of certain qualities. The piece of mere inorganic matter (if it exists) is insentient; we treat it as we like without considering its feelings, because we assume that it has none; it moves only as it is moved, supplying only inertia to its own reactions. Thus its individuality, though it exists (for it is "this" and not another) is negligible. When we rise to the vegetable stage, external surroundings have a relatively smaller

[1] *Metaphysics*, vii, 1072, p. 3. [2] *Prolegomena to Ethics*, p. 97.

influence on reactions and the nature of the individual more; but it is still assumed that there is no sentience, and we cut cabbages without feeling bound to consider their feelings. With animals we find indubitable sentience, and also the power of self-motion; along with sentience may go a sense of the difference between "mine" and "thine," and an expectation of reasonable treatment which almost amounts to a moral claim; this is most conspicuous in dogs, who also exhibit what can hardly be distinguished from a sense of duty. But all conscious interest seems to be limited to the present.

When we rise to the stage, where by accepted usage the term Person is first applied, we find that the influence of circumstance on conduct is still less, and the individual character is held definitely responsible for its reactions. Here sense of duty, and with it the sense of rights, is central; and personality shows itself most of all in the capacity to form (or accept) a Purpose and deliberately organize life and conduct for its fulfilment. For purposive Personality not only the present but also the past, and, still more, the future, is apprehended as important; it rises above time in the sense of surveying the course of Time, but the process of Time is essential to it. It is just this consideration which is fatal to those forms of Absolutism which relegate all succession to a position of ultimate unimportance. The Divine Will, wherein Theism finds the unifying principle of Reality, must, if it is reasonably called Will at all, achieve its purpose in the process of Time while itself surveying as from without or above the whole course of Time.

Parallel with the series of grades from mere Thing to Person is that from Matter to Spirit; but here the relationship is not only of higher and lower but of potential and actual. Mere matter does not reveal all that it can do and be until life directs it; life does not reveal all that it can do and be, until Mind directs it. Mere Mind (calculation) does not reveal all that it can do and be until Spirit (obligation or "ultimate value") directs it. Each higher grade requires for its existence those lower than itself; but the lower only realize the fulness

of their own being when the higher "inform" them. Spirit exists, it would appear, by means of Matter; but Matter exists as a means to Spirit.[1]

Now if we put together the belief in the Ultimate Will and the belief in the sacramental nature of the Universe, we reach a general conception which immediately points to some elements in human experience as being more than others important to and significant of the supreme principle of Reality: and they are not the elements on which traditional philosophy has laid the greatest stress. Philosophy is essentially intellectual; and it has tended, in consequence, to give the greatest prominence to those fields of inquiry in which the most perfect intellectual satisfaction appears to be obtainable. Mathematics appears to be such, for here an absolute cogency and precision is not only possible but normal. It seems unquestionable that the immense prominence given by Plato to Mathematics has its origin in this fact. But Mathematics purchases its precision and its cogency by an abstraction so thoroughgoing that it may fairly be said to leave reality behind and to deal only in notions. When the definition of a triangle has been given, there is no doubt about the equality of its internal angles to two right angles; but perhaps there is no such actual thing as a "triangle." Now the abstraction of Mathematics is not only from material reality, but from Beauty and Justice. In other words, Mathematics deals with an aspect of reality which is not by any means the most important to Reality as a whole, if Reality is the expression of a Divine Will.

Moreover, the scientific process, of which Mathematics is taken as the ideal type, ends always in knowledge only, whereas the scientific processes of Ethics and Æsthetics end not only in knowledge but also in action. In Æsthetics we study the laws governing the creation and appreciation of beauty, not only that we may understand intellectually what beauty is and how it is produced, but that we may ourselves creatively

[1] In other words, what the Church believes to happen in a Sacrament is the true norm of the whole universe and of all things in it.

produce it and sympathetically appreciate it. In Ethics and Politics we study the laws of good living not only in order to understand the good life but in order to practise it. In other words, that science, of which mathematics is the type, endeavours to understand the world while leaving it what it was before; that science, of which Ethics is a type, seeks to understand the world as it is and as it might be, in order to change the former into the latter. Æsthetics, Ethics and Politics may be, and should be, every bit as "intellectual" as mathematics in their method of study; but their material is not reducible to what is itself intellectual in origin, as are the pure quantities studied by mathematics. The mathematical kind of science is indeed vitalized by will; but it is only the will to know, and this is independent of all social relationships, so that it lacks many of the elements that go to make up full Personality. If then the ultimate Principle is personal, we shall learn more about It (or Him) from the other group of sciences, both from their subject-matter and from their results, than from the mathematical group. God is more fully revealed by the Artist than by the Mathematician, because the Artist is in a fuller measure creative; he is more fully revealed by the statesman than by either, for the statesman is a creative artist whose material is persons and personal relationships. He is best of all conceived as a Father, who is an artist in living material of which he is himself the origin.

This is no contention that philosophy should somehow cease to be intellectual; if it does that, it perishes. What is contended is that the intellect, in its search for ultimate truth, is liable to be misled by the ease with which it accomplishes its own ideal in the mathematical sciences. As we have seen, that ease is due to the fact that these sciences are so highly abstract that they may be said to have turned their back upon Reality and to have dealt only in notions. In particular, though these sciences are actuated by a value—no less a value than Truth—they are not directly studying value at all; in their study, they abstract from value. Astronomy does not seek to settle "whether the earth is round or flat by showing

which it is better that it should be," as Plato professes to have hoped that Anaxagoras was going to do. But Æsthetics consists in directly studying a Value—Beauty ; and Ethics consists in directly studying a Value—Good. It is true that the intellect of man never in this earthly life attains the same degree of cogency and precision in these studies as in mathematics ; but this may be (as I am convinced it is) only because there is needed an apprehension infinite not only in range and delicacy but also in sympathy, and (perhaps) an infinite time-span, if all the relevant considerations are to be correlated. After all, æsthetics and ethics are themselves no less " intellectual " than mathematics ; but in their subject-matter there is something which the discursive " intellect " cannot analyse or completely master, namely, Value. Therefore, in claiming that philosophy should give a pre-eminence to these sciences, while by no means neglecting the others, we are not preferring some other thing (intuitionism or what-not) to the rule of the intellect ; we are only asking the intellect to be true to its own ideal of comprehensiveness as well as to that of coherence, and give the priority to that which is more comprehensive over that which is less.

Recent philosophy shows a growing tendency towards this point of view. It is enough to mention such different philosophers as Bosanquet, Pringle-Pattison and Croce. But when we look at these philosophers in their treatment of values, we find that for the most part they do not study the actual values, but rather the concept of values. We owe a great debt to Mr. Bosanquet for his demonstration of the identity of logical structure in Truth, Beauty and Goodness. But Beauty is in fact rather abstractly handled, and Goodness very markedly so. There is a great contrast at this point between his inquiries and (for example) Aristotle's study of actual moral judgments and actual political forms. No doubt it is difficult for the modern philosopher to study the concrete facts without giving to this study an inordinate amount of space. If it is to be done, it must be by the deliberate selection of one moral tradition ; but that it can be done in this way has

been shown by Solovyof in his treatise on *The Justification of the Good*. It is the mathematical tendency to deal with notions (which, of course, always express some reality) which leads to the simplifying of all the rich bewildering variety of human goods into a concept of goodness which is not the concrete universal of all these but their almost empty form, and makes of this the object of philosophic thought. Yet if the Ultimate Principle of Reality is a Personal God, it is the rich variety and not the simple form to which philosophic importance primarily belongs.

At this point the age-long tendency of philosophy to attend chiefly to what it most easily masters, namely, the notional and static, is in Europe reinforced by an accidental influence due to historic causes. When Christianity first became the predominant influence in the European mind, it seemed to provide (as indeed I believe it does provide) a unifying principle qualified to be the pivot of a truly complete philosophy. That philosophy was elaborated in the terms of current thought by the scholastics. But just because the system thus elaborated was so complete, it became a tyranny. New knowledge, if it did not fit into the scholastic scheme, was repudiated. Baser motives assisted the growth of obscurantism; the intellectual greatness of the Schoolmen became a dead-weight on the intellectual life of their successors, and a conservatism far from disinterested was willing to use a great intellectual achievement to check the social or ecclesiastical inconvenience of further intellectual inquiry. Dogma, which had been the formulation of a corporate intellectual process, was allowed to appear as an enemy of free intellectual inquiry; and there arose the now familiar antipathy of the active or alert intellect to all dogmatic propositions and to the Church that accepted and maintained them. The Church became unsympathetic to free philosophy in the later Middle Ages; and philosophy has retaliated by taking it for granted that the Church is rightly to be ignored. It is not only the Church that suffers.

Is it not a phenomenon which will astonish our descendants when they study our philosophy and find that most philoso-

phers in Europe in the eighteenth and nineteenth centuries, though they deal with ethics and speak freely of religious experience, pay scarcely any attention to a great stream of religious life flowing strongly in their own time and admittedly influencing the institutions of civilization as much as any other force that can be named? We have referred to the contrast between the rather abstract ethical principles which form the material for ethical study in most English philosophers, even in T. H. Green, with the richly concrete data handled by Solovyof, who unashamedly bases himself on the moral instincts and judgments of Christendom. But the contrast is even more glaring when we pass to the field of "religious experience."

There are few phrases that have been used so freely or so loosely as this. It has two distinct meanings. It may be used, as it is by William James, to denote specific moments in which a man passes through what he takes to be direct awareness of God or of intercourse with him. The fact that James isolated these "experiences" deprived his treatment of them of half the value that it might have had. The phrase "religious experience" may also mean the constant experience of life and the world that comes to a religious man—an experience which is pervaded and permeated by religion. Now it is this, and not the former, to which any religious person attaches importance. Trances, visions, ecstasies—these may come or not; but they are no indispensable part of "religious experience" as a religious man understands it, and they derive their value precisely from the fact that they are not isolated, but are focal or concentrated examples of what is all-pervasive. The religious man not only prays religiously or does his duty religiously; he eats and drinks religiously, he plays religiously, he sins religiously. The last is usually the most conspicuous to his own mind. If an irreligious man ignores the Moral Law, he will afterwards feel remorse or not according as he is or is not conscientious. But the religious man who ignores the Moral Law is conscious of rebellion against a king, and (if he be a Christian) of the betrayal of a friend.

There is in Christendom a mighty volume of such experi-

ence; it finds its formulation and representative expression in the creeds and worship of the Christian Church. Yet philosophers hardly ever attend to this. So strong is the prejudice that the Church should be ignored, that they hardly attend to it even to explain the basis of its supposedly fallacious power over men. The antipathy of philosophy to the Church and its tradition combines with the prejudice in favour of using only the processes of the intellect as data for the intellect in its search for ultimate truth, to lead to an exclusive attention to one kind of religious experience; at any rate it is the fact, and a very odd fact, that, broadly speaking, philosophers attend only to the religious experience of the mystics.

It may indeed be urged that one great modern philosophy —Hegelianism—offers itself as a philosophy of Christianity. But it remains rather detached from the actual experience of the ordinary Christian. It tends to take the theology of Christianity for the whole of it, and religion is always more than theology, as art is more than æsthetics. The Hegelian philosophy of religion pays scarcely any attention to the psychology of religion, which ought to supply a large part of the data; and it is with the psychological aspects that the Church in practice is mainly occupied. So even in this professedly Christian philosophy there is still a strange aloofness from the actual Christian Church.

It may be true that the mystical experience is the intensest of all forms of religious experience; it may be even the most purely religious, in the sense that it is more than any other detached from non-religious interests.[1] But for this very reason it is the least representative, and even (perhaps) the least important. Certainly the great mystical saints attached singularly little importance to those "experiences" which most thrill some modern psychologists. S. Paul had wonderful "experiences"; but he declared that the only test of their divine character was to be found in their power or impotence to increase "charity." So S. John said, with excellent terse-

[1] Religion, like Plato's Justice, claims all life for its sphere, and if some special department for its exercise is sought it turns out to have none except in individual feelings: *ἐν ἀχρηστίᾳ χρήσιμος*.

ness: "If a man say, I love God, and hateth his brother, he is a liar." S. Theresa, S. Thomas à Kempis, S. Catharine of Genoa bear the same witness. And if God is indeed the Creator of all men, having a purpose for them all, the "religious experience" of the average religious person will be more important in His sight, just because it affects so many of His children, than the achievements of devotional athletes, though these must be precious, too. Moreover, if God made all the world, an "experience" which consists in a "flight of the alone to the Alone" will be less rich in religious apprehension than the "experience" of dependence and devotion which is shared with countless others, and expresses itself through the symbolic use of common material things (like bread and wine), and is always conscious of obligation to fulfil in conduct the purpose of the God to whom adoration is given. Philosophers have tended to take the mystical experience as typical of religious experience because in it we find religion pure and simple. But if Theism is true, then "religion pure and simple" is a form of religion defective in itself and not specially pleasing to God.

We plead, then, that any philosopher who arrives at Theism as a general conclusion should come back to study the world again in the light of that conclusion. If the final explanation of the world is the Will of a Creator—a Being who fulfils that hope of a complete Personality which grows in the mind as it ascends the scale from dead matter to human life—we can see at once what must be to Him (and therefore in truth) some of the most important values. And we may reasonably expect to find the clue to many problems in the average sincere religious experience of men. If there be any specific act of divine self-revelation, then we shall expect to find this clue most of all in the average sincere religious experience of those who have received that revelation. But in any case our attention will be directed to the concrete realization of values, not to the bare idea of value; to great moral traditions and great streams of religious experience, rather than to the bare notion of morality or the bare notion of religion. All knowledge will

still be our data; but we shall expect to learn more about Reality from ethics than from mathematics, and an effort to establish a League of Nations will seem to us, even metaphysically, more important than Einstein's suggested improvements on Newton.

Clearly it is not possible in this essay to follow all the lines of argument which are thus opened up. But we would call attention to the fact, which confirms that hope which we have spoken of as arising in the mind as it passes in thought from Thing to Person. For there is no doubt that normal religious experience takes the form of a personal relationship. Any weight that we attach to the evidence of such experience tells in favour of a belief that God is "personal." To say He is *a* Person is perilous, because it suggests the limitations of personality as we know it in ourselves. The Christian tradition, in employing the word Person as descriptive of God, has steadily said that the One God is Three Persons. But at least He must be such as to be one term in a personal relationship, if normal religious experience gives any clue. And if the experience formed under the influence of the Christian tradition is to be trusted, His personality must be such as to support three relationships, which could not all be supported by one "person" conceived on the analogy of human personality.

Theism, then, being reached as a general conclusion on general philosophic grounds, invests with special importance or significance a department of human experience, which is found to corroborate that belief in the personal nature of the Ultimate Principle, which is the essence of Theism. Of course the argument is circular; but it is not vicious. On the contrary, it is an illustration in one department of that method which we found reason to regard as the most scientific.

Further, our whole conception of the physical world must be affected by our acceptance of theism. If the world is rooted in the activity of the divine Will, we have to ask not only what is the method, but also what is the object of Will? And the answer, it would seem, is Value. The direct object of Creation, then, is Value. Certainly value never exists in isolation; it

exists only in things or persons which have value. But it makes a great difference whether we think of objects as existing in their own right and incidentally possessing value, or think of value as the substantive entity which assumes various concrete forms for its own actualization. If the latter view be adopted we shall not contrast ontological judgments with value judgments, and give the priority to one or the other, for on this hypothesis value judgments are the only truly ontological judgments.

It is this inference from Theism which seems to carry the most momentous consequences for philosophy. The development of them would require a volume.[1] But a philosophic system which based itself on the conviction that value (or Good) is itself the sole Reality would have solved from the outset some of the characteristic perplexities of much contemporary thought, and would have the additional advantage of starting from a point (Value) where subjective and objective are plainly blended, for if Value is the *causa essendi* of the objects in which it becomes actual, it assuredly exists for the appreciating mind.

Theism moreover supplies the corrective needed to deliver a Value-philosophy from the chaos of humanistic Pragmatism. For while every mind must find Value in what answers its own aspirations, yet these values are only provisional or apparent. They represent by analogy the true values, which are the real substance of the world and all things in it; these are the values which answer to the joy of God as He looks upon His work and knows that it is good.

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[1] I have attempted the elaboration of some of the consequences in *Christus Veritas.*

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